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Testing Support for an Evaluation of a Houston Physical and Functional Inspection/Maintenance Program

Automotive Testing Labs., Inc.
Aurora, CO

Prepared for

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Four-hundred eighty vehicles were inspected under the program: one-hundred from the 1980 model year, one-hundred 1979 vehicles, one-hundred 1978 vehicles, sixty 1977 vehicles, sixty 1976 vehicles and sixty from the 1975 model year. Both domestic and imported auto makes were examined.

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TABLE OF CONTENTS

Page

ABSTRACT iii

1. INTRODUCTION 1-1

2. TECHNICAL DISCUSSION 2-1

   2.1 PROGRAM OBJECTIVE 2-1

   2.2 PROGRAM DESIGN 2-1

   2.3 TEST VEHICLE PROCUREMENT 2-2

      2.3.1 Sample Criteria 2-2

      2.3.2 Procurement Plan 2-3

      2.3.3 Incentives 2-3

      2.3.4 Test Vehicle General Handling 2-4

   2.4 FACILITY AND EQUIPMENT 2-5

      2.4.1 Test Location and Facility 2-5

      2.4.2 Chassis Dynamometer 2-5

      2.4.3 Constant Volume Sampler 2-5

      2.4.4 Analytical Instruments 2-6

      2.4.5 Data Acquisition 2-6

      2.4.6 Laboratory Standard Calibration Gases 2-7

      2.4.7 Miscellaneous Equipment 2-7

   2.5 EQUIPMENT CALIBRATION AND VERIFICATION 2-8

      2.5.1 Chassis Dynamometer 2-8

      2.5.2 Constant Volume Sampler 2-9

      2.5.3 Analytical Instruments 2-9

   2.6 TEST PROCEDURES 2-10

      2.6.1 Inspection Procedure 2-10

      2.6.2 Vehicle Preparation 2-12

2.6.3 Equipment Preparation 2-12

2.6.4 Federal Exhaust Emission Test Procedure 2-13

2.6.5 50 (mph) Cruise Test Procedure 2-15

2.6.6 Highway Fuel Economy Test Procedure 2-15

2.6.7 Loaded Two Mode Test 2-16

2.6.8 Four Speed Idle Test 2-16

2.6.9 Vehicle Inspection Procedure 2-16

2.6.10 Maintenance Procedures 2-17

2.6.11 Daily Test Schedule Procedure 2-21

2.7 DATA HANDLING 2-22

2.7.1 Data Collection 2-22

2.7.2 Data Processing 2-22

2.7.3 Quality Control 2-23

2.7.4 Calculation of Results 2-25

3. LISTING OF TEST RESULTS 3-1

1. INTRODUCTION

The United States Environmental Protection Agency (EPA), under authority of the Clean Air Act, develops, implements and administers a program to assess, quantify and reduce pollution of the nation's resources. Authority for parts of this program is delegated to the agency's Inspection/Maintenance (I/M) Staff. The I/M Staff's responsibility is to administer, advise and support inspection/maintenance programs as well as certain studies which pertain to the institution of such programs.

One such study, which is the subject of this report, was conducted in the Houston area (population 2,885,000 with a comparably large vehicle population) examining model-year 1975 through 1980 vehicles. The 1975 Federal Test Procedure was used to assess the effect maintenance actions produced on vehicle emissions. Direct tailpipe emission data by abbreviated test procedures was also analyzed, since abbreviated tests are used in state and local vehicle emission inspection/maintenance programs. Also included are investigations of the individual and combined effects of emission control system malfunction, disablement and maladjustment on vehicle emissions and fuel economy.

To execute this study, the EPA contracted with Automotive Testing Laboratories, Inc. (ATL).

2. TECHNICAL DISCUSSION

2.1 PROGRAM OBJECTIVE

The object of the program was to develop test data, to furnish the Environmental Protection Agency (EPA) and the Texas Air Control Board with the capacity to answer questions and resolve issues specific to a potential I/M program using inspection tests other than tailpipe emissions. The data were obtained from privately owned in-use light duty vehicles recruited in the Houston, Texas area.

2.2 PROGRAM DESIGN

Four-hundred eighty (480) vehicles were inspected as part of the program. Model years 1975-1980 were examined. A total of 206 vehicles, by virtue of failing an inspection, which consisted of a catalyst inspection, a fuel inlet restrictor inspection, an idle test and a propane recovery test, were found to qualify for testing and maintenance.

Lists which prescribed the composition of the sample were provided by the EPA. Substitutions were allowed within certain limits. Procedures by which the test vehicles were obtained were in keeping with an EPA approved procurement strategy. Although some of the vehicles were from rental fleets, most were privately owned. Incentives were offered to promote owner participation.

Those vehicles which qualified for testing and maintenance were subjected, in their as-received condition, to those parts of the 1975 Federal Test Procedure (FTP) which deal with cold and hot start exhaust emission tests. In addition, tested vehicles were subject to the Highway Fuel Economy Test (HFET) as well as three short cycle tests, which were the 50 MPH Cruise, the Four Speed Idle and the Loaded Two Mode Tests.

Failed vehicles were eligible for up to six maintenance steps. Subsequent to each step a replicate test sequence consisting of the FTP, HFET and the three short cycles was performed. The number of sequences and maintenance steps performed was dictated by the category or categories of the inspection which the vehicle failed.

Other actions performed for each failed vehicle included: an emission control system maladjustment/disablement inspection, a tire inspection, a vehicle driveability evaluation and an interview of the vehicle owner to secure historical information on the vehicle's maintenance and use.

Other study-related activities pertained to test equipment calibration and data review, reduction and reporting. Details concerning these and the activities cited above are presented in the remainder of this section.

2.3 TEST VEHICLE PROCUREMENT

2.3.1 Sample Criteria

Criteria for the procurement and selection of test vehicles were provided by the EPA. Criteria for the sample were given on a list describing 480 vehicles from the 1975-1980 model years. Quantities required were designated in the descending order of model year, make, model size (subcompact, compact, intermediate, etc), engine size, carburetor type (fuel injected, 1 barrel, 2 barrel, etc.) and transmission type (automatic, manual 3 speed, manual 4 speed, etc.). Quantities required by model year were weighted for the most part toward the later model years. Vehicles from the later model years are equipped with the latest in emission control technology and are also those on which the least amount of in-use data are available.

Substitution allowances were provided to take into account localized vehicle distributions as well as other factors which generally contribute to procurement difficulties. These allowances are reflected in the following minimum procurement requirements:

100% exact vehicle match to listed make and model year.

90% exact vehicle match to listed make, model year and engine size.

70% exact vehicle match to all listed parameters.

70% exact vehicle match to all listed parameters.

Other criteria for the emission factors sample consisted of limitations on procurement sources. The use of fleet and rental vehicles was limited to no more than ten per cent for each model year. The use of vehicles from civic, fraternal and other organizations was limited to no more than fifty per cent. The use of vehicle groups from organizations with an automotive orientation such as sports car clubs, however, was prohibited.

2.3.2 Procurement Plan

The plan for procuring test vehicles primarily consists of the use of vehicle registration lists and direct mail solicitations.

Several postal zip-code areas were selected in the Houston metropolitan area on the basis of their proximity to the laboratory. Vehicle owners residing within these areas were selected from commercially available computerized vehicle-registration files by the random process of nth name selection whereby each 1, 2, 3, 4 or nth name appearing in the file is selected. The value of n is determined by the total number of vehicles in the file in relation to the number of vehicles needed. Selected vehicle owners were mailed a letter and a post-paid information reply card. The letter explained the program's purpose and nature and invited participation. The reply card was provided to enable the owner to supply vehicle information not otherwise available.

Experience provided the basis for determining the number of mailings required. Affirmative responses vary, but they were generally between five and ten per cent of the total number mailed. Approximately thirty mailings were sent for each vehicle required.

Mail solicitations produced approximately ninety per cent of the vehicles procured. Approximately five per cent of the test cars were obtained through color-coded vehicle reply cards which the Texas State Emission Testing Center inspectors handed out to participants who voluntarily had their vehicles inspected at the Center. The remainder were obtained as a result of appeals directed through the news media and from car lots, rental car agencies and referrals from other participants.

2.3.3 Incentives

An incentive package prescribed by the EPA was offered and provided for each vehicle tested. The package consisted of:

A $75 U. S. Savings Bond

A late-model loan vehicle to serve as a substitute for the test vehicle

Fuel for the loan vehicle

A full tank of fuel for the test vehicle upon return to its owner

2.3.4 Test Vehicle General Handling

Vehicle owners were contacted from telephone numbers given on the reply cards. Vehicle information was confirmed and any missing information was obtained during this contact. Test schedules were also established at this time. Privately owned vehicles were delivered to the laboratory. Laboratory personnel picked up and returned vehicles which were procured from rental car agencies and car lots.

The prospective test vehicle was examined upon arrival at the laboratory to confirm compliance with the sample specification and to assure suitability for testing. A relative few were rejected by reason of incorrect owner-supplied engine, carburetor and/or other equipment-identifying information. Relatively few other vehicles were rejected at this or some subsequent point due to exhaust system leakage, transmission problems, brake problems or related factors. Acceptance activities included an incoming vehicle status inspection which was used to limit laboratory liability. Test and loan vehicle exchange agreements were completed upon acceptance of the test vehicle and an EPA-furnished questionnaire was administered to the owner. The questionnaire is designed to gain useage, maintenance and other information concerning the vehicle. The vehicle was subsequently moved to a staging area where remaining pre-test operations were completed.

The vehicle was returned to the staging area for depreparation procedures and refueling after testing was completed. It was then moved to a parking area where it remained until picked up by the owner.

2.4 FACILITY AND EQUIPMENT

2.4.1 Test Location and Facility

A temporary laboratory facility located at 8564 Katy Freeway, Suite 132, in Houston was used for the study. The elevation above sea level is sixty feet. The facility contained 7,200 square feet of laboratory and office space. Cooling was furnished by two permanently installed twelve and one-half ton air refrigeration units supplemented by a portable three and one-half ton air refrigeration unit.

2.4.2 Chassis Dynamometer

The chassis dynamometer used in the study was a Clayton Model ECE-50. The ECE-50 has two continuous rolls, seventy-eight inches in length and 8 5/8 inches in diameter. Axial spacing of the rolls is 17 1/4 inches. The tachometer generator was installed on the rear roll.

The dynamometer was equipped with a speed meter which was linear with speed and accurate to within ± 2.0 km/hr (± 1.2 mph) over the 0 to 95 km/hr (0-59 mph) range. It was also equipped with a power meter which was accurate to ± 0.187 kw (± 0.25 hp). The dynamometer was further equipped with a direct-drive inertia assembly which provided 250 pound inertia increments from 1750 to 5500 pounds.

The dynamometer was lubricated and maintained in accordance with Clayton's requirements.

2.4.3 Constant Volume Sampler

The constant volume sampler (CVS) used was the AESI Model 1000. The Model 1000 is a positive displacement pump (PDP) type equipped with a gas-to-water heat exchanger and six sample bags. All plumbing in the sampling and calibration systems was of stainless steel or teflon construction. Leak-tight convoluted stainless steel tubing was used to connect the CVS and the vehicle tailpipe. Several lengths were provided to keep the exhaust run as short as practical. Accuflex brand silicone-rubber adapters were used to connect the tubing to the tailpipe.

The sampler was modified from the conventional design to facilitate automated sampling system evacuation/leak check.

2.4.4 Analytical Instruments

Listed below are instrument models, and ranges, which were part of the analytical system used for FTP and HFET (diluted) sample analyses:

Two Beckman Model 400 FID's providing full scale C ranges of:
0-50 ppm, 0-100 ppm, 0-300 ppm, 0-1,000 ppm and 0-3,000 ppm

One TECO Model 10 CL NO_x analyzer with full scale ranges of:
0-100 ppm, 0-250 ppm, 0-1,000 ppm and 0-2,500 ppm

One Bendix Model 8501 NDIR CO analyzer providing full scale ranges of:
0-100 ppm, 0-500 ppm, 0-.3%, 0-3% and 0-5%

One Beckman Model 315B NDIR CO_2 analyzer with full scale ranges of:
0-2.5%, 0-4% and 0-8%

Undiluted emission analysis (Four Speed Idle, Loaded Two Mode and the 50 Cruise) was performed using the following analyzers and ranges:

One Chrysler Model III C NDIR CO analyzer with full scale ranges of:
0-300 ppm C_6 and 0-2,000 ppm C_6
0-0.5% CO and 0-10% CO

One TECO Model 10 CL NO_x analyzer with full scale ranges of:
0-100 ppm, 0-250 ppm, 0-1,000 ppm, 0-2,500 ppm and 0-10,000 ppm

The diluted and undiluted exhaust analyzers were respectively situated within rack-type console cabinets. Sampling, analytical and calibration system plumbing was of stainless steel or teflon construction.

2.4.5 Data Acquisition

The following equipment was used for the acquisition of test data:

Wet and dry bulb temperatures of air supplied to the vehicle under test and temperature of the CVS exhaust gas/dilution air mixing point were recorded on a Soltec Model DB, three-channel, ink stylus, strip chart recorder, with a chart width of approximately eleven inches.

Barometric pressure was recorded on a Taylor Model 6450 recording barometer.

Soak area temperature was recorded on a Rustrak Model 2133, single channel, pressure stylus, strip chart recorder, with a chart width of approximately two inches and a range from 10°C to 37.5°C (50°F to 100°F).

The driver's aid was an Esterline Angus two-channel, off-set heat stylus, strip chart recorder, with a chart width of approximately eleven inches. The leading pen records the dynamometer speed command signal; the lagging pen records the feedback signal.

Exhaust emission analyzers were connected to Texas Instruments (TI) Model Servo-riter II, two-channel, ink stylus, strip chart recorders, with a chart width of approximately eleven inches and 100 division full scale chart paper. Diluted CO and CO_2 were connected to one of these recorders. Diluted HC and NO_x were connected to a second. Undiluted CO, HC and NO_x were connected to a three-channel version of the TI Servo-riter II.

CVS pump revolutions were displayed on an electronic digital meter.

A Data General Model Nova II computer was used to generate driving schedule traces and as a cross check to ensure accuracy of the analyzer ranges. The computer also provides printouts of distance traveled by the test vehicle and integrates analyzer and test cell temperature traces.

2.4.6 Laboratory Standard Calibration Gases

A set of secondary calibration gas standards was used at the site to calibrate the analytical instruments. All secondary calibration standards were identified from a set of primary standards which, in turn, were identified by the EPA's laboratory in Ann Arbor.

Primary and secondary calibration gases are bi-blends (CO, CO_2 and NO_x plus zero-grade N_2 as the diluent, HC as propane plus zero-grade air as the diluent).

FID fuel gases were a mixture of 40% H_2 and 60% N_2. Zero gas impurities were maintained below 1 ppm C, 1 ppm CO, 400 ppm CO_2 and 0.1 ppm NO. NO_x calibration gases contained less than 2% NO_2.

2.4.7 Miscellaneous Equipment

As-received vehicle tank fuel was analyzed for lead content. The analysis was performed using a Science Essentials fuel lead test kit (Mobil Method 1125-74).

A Hartzell Model N24DW propeller-type fan, nominally air flow rated at 5300 cubic feet per minute, was used in connection with dynamometer testing to supply vehicle frontal and underhood cooling air.

Wheel chocks and a ratcheting-type winch were used to secure vehicles on the dynamometer and prevent them from rocking on the rolls. A rubber belt dressing was applied to drive tires immediately before cold start testing began to reduce slippage between the drive tires and dynamometer rolls.

The usual complement of ignition scopes, timing lights, tachometers, hand tools and other engine diagnostic and tune-up equipment was used to perform the emission-related inspections, adjustments and repairs. Special diagnostic and repair equipment was provided and used as needed.

2.5 EQUIPMENT CALIBRATION AND VERIFICATION

Program test equipment calibration and verification requirements were met through application of the following procedures.

2.5.1 Chassis Dynamometer

Dynamometer calibration was performed initially and confirmed each two weeks thereafter.

Initial calibration included setting the speed meter to true zero with the dynamometer at rest followed by establishment of the upscale span point (46.3 mph). A fixed-rate strobe light was used to establish the upscale span point. The power meter was zeroed with no weight applied to the torque area. A known weight was subsequently applied and the power meter was adjusted accordingly. Dead weight calibration was followed by dynamic calibration using the coastdown technique to establish the relationship between indicated and actual horsepower.

Bi-weekly calibration confirmations included the speed point checks and the coastdowns. Coastdown calibrations were maintained within ± 0.746 kw (± 1 hp) for each inertia weight.

Calibration of the driver's aid was checked in relation to the speed meter indication before and after each test. Pre-test driver's aid speed checks were maintained within ± 0.6 km/hr (± 1 mph) of the indication on the dynamometer speed meter.

2.5.2 Constant Volume Sampler

The constant volume sampler was subjected to an initial checkout and flow calibration. A Meriam Model 50-MC2-6F laminar flow element (LFE), which has an air flow rating of 1,000 cfm, was used as the flow standard. LFE calibration is traceable to the National Bureau of Standards. A minimum of ten points, five on each side of the normal set point, was measured on the CVS pump's single range. Auxiliary devices used to calibrate include: a mercury barometer for measuring absolute ambient pressure, a close tolerance mercury thermometer for measuring blower inlet temperature, a U-tube water manometer for measuring pressure drop across the blower and blower inlet pressure and a close tolerance inclined water manometer for measuring pressure drop across the LFE. Calibration was such that no data point deviated more than 0.5% from the least squares best-fit line through the points measured and that no data point deviated more than 0.25% from the least squares best-fit line through all points.

CVS calibration was confirmed daily thereafter by propane injection and recovery. The injected amount was such as to have produced a concentration falling in the upper one-third of the 0-300 ppm FID range. Recovery within ± 2% of the injected amount was acceptable. A recovery outside the acceptable range required corrective action and two successive recoveries within range before testing was resumed.

2.5.3 Analytical Instruments

Emission analyzers were set-up in accordance with procedures specified by the manufacturers and subjected to initial calibration. Flame Ionization Detector (FID) and Nitric Oxide (NO_x) analyzers were calibrated at three points spread somewhat evenly across each range. Carbon Monoxide (CO) and Carbon Dioxide (CO_2) analyzers were calibrated at seven points spread somewhat evenly across each range. Initial calibration curves were maintained such that the actual calibration point was within ± 5% of the curve value and the difference between the actual point and the curve was within ± 1 % of the full scale value.

Calibration curves for the analyzers were subjected to a complete check on a weekly basis. Each curve point was maintained within ± 1 division (100 divisions, full scale) of the point established in the original calibration.

Analyzers were zeroed with zero gas and spanned on the range in use at eighty per cent to 100 per cent of full scale.

Efficiency of the NO_x analyzer converter was checked daily and maintained between ninety per cent and 100 per cent.

CVS sample bags were purged with nitrogen, evacuated and leak-checked prior to each test. Other procedural precautions included zero and span point sets immediately before exhaust sample analysis and zero and span point verification immediately following sample analysis. Verified zero and span points were maintained within ± 1 division of the set points. Noise levels of recorded analyzer outputs were maintained within ± 0.5 divisions.

Analyzers used for tailpipe emission measurements were zeroed with zero gas and spanned with known span gases immediately before each test. These analyzers were otherwise operated in accordance with the manufacturer's specifications.

2.6 TEST PROCEDURES

Tests were performed in the following sequence:

Federal Test Procedure

50 Cruise Test

Highway Fuel Economy Test

Four Speed Idle Test

Loaded Two Mode Test

2.6.1 Inspection Procedure

Each vehicle accepted into the study was subjected to an I/M Lane Test performed at the Texas State Emission Testing Center, located at 4303 San Felipe in Houston. This inspection was designated I/M Lane Test #2, which differed from I/M Lane Test #1 only in that a #1 designation indicated that the inspected vehicles were procured by the State Center with no assistance from ATL.

Inspectors at the State Center performed functional and visual checks of the car to assess the vehicle condition in four categories:

Damage to the fuel inlet restrictor

Presence or absence of the catalyst

HC and CO readings from an idle test

Propane gain from a propane enrichment procedure

The following standards* were used to evaluate the idle and propane gain tests:

Model Year	HC (ppm)	CO (%)	Propane Gain
1975-1977	400	3.5	10
1978-1979	300	3.0	10
1980	200	2.0	10

Vehicles which were passed by the Center inspectors in all four categories were returned immediately to their owners. Cars which were not originally equipped with inlet restrictors and catalysts were pronounced passed in those two categories.

Vehicles which were failed by the inspectors in one or more of the four categories were returned to the laboratory and retained for testing and maintenance.

A number of vehicles were procured from vehicle owners who voluntarily took their cars to the State Center. This inspection was designated I/M Lane Test #1. After the inspection, vehicle owners were presented with a reply card which they were asked to fill out and return to ATL. The Center inspectors distributed blue cards to the owners of passing vehicles and yellow cards to those of failing vehicles. It was not necessary, therefore, for ATL to take the vehicles procured from the color-coded cards to the State Center after the vehicle arrived at the laboratory. Twenty-two vehicles were recruited into the program using this method.

*The HC and CO standards are the maximum allowable; the propane gain standard is the minimum allowable.

The State Center inspection was repeated for each failed vehicle after all testing and maintenance had been completed, prior to the vehicle being returned to the owner. In addition, failed vehicles were re-inspected at the State Center after each test sequence as often as vehicle availability (i.e., the car was not in soak) coincided with the State Center operating hours.

When the study began, the Texas State Emission Testing Center performed vehicle inspections Monday through Friday from 8:30 AM to 4:30 PM. At approximately the midpoint of the study, the Center changed their inspection hours to better accommodate the general public. The new hours were 8:30 AM to 4:30 PM Tuesday, Wednesday and Friday, 8:30 AM to 7:30 PM on Thursday and 8:30 AM to 1:30 PM on Saturday.

On August 30, 1980, the State Center discontinued operations, and ATL automotive technicians assumed the function of performing inspections.

2.6.2 Vehicle Preparation

Subsequent to acceptance and inspection, the failed vehicles were drained of as-received fuel and refilled to forty per cent of tank capacity. A sample of fuel drained from each vehicle was retained for lead analysis. Those vehicles requiring unleaded fuel were refueled with Indolene Clear. All others were supplied with Indolene 30.

All vehicles were operated for a period of ten minutes on a predetermined public road route subsequent to refueling. The purposes of such operation are threefold: to purge non-test fuel from the fuel system, to bring the vehicle to normal operating temperature and to assess vehicle operating characteristics. Moderate to severe operating difficulties, in particular, are noted for later reference in the cold start tests.

After test preparation procedures were completed, the vehicle was driven to an indoor, temperature controlled area and shut down to begin the temperature stabilization (soak) period prescribed by the Federal Test Procedure.

2.6.3 Equipment Preparation

The laboratory operated at the rate of three shifts per day. Approximately twenty-one hours of the operating day were devoted to testing. The remaining three hours were used for calibrations and daily equipment checks. The facility operated at the rate of six days per week. The seventh day was also used for calibrations and for scheduled and unscheduled maintenance of the laboratory and its equipment; consequently, equipment was rarely in a shutdown mode. When it had been shut down for an extended period of time, however, certain reactivation procedures were followed.

Equipment which had been idle or in a stand-by condition was fully activated to begin warm-up. Such equipment included the water heater and mass pump of the CVS and each of the analytical instruments. If not subjected to extended operation in the two hour period preceding a test the dynamometer was also warmed-up by means of fifteen minutes of vehicle operation on the dynamometer at 48.3 km/hr (30 mph).

With all equipment at normal operating temperature, sensitivity of the constant volume sampler's automatic leak detection system was checked and adjusted as necessary. A leak-check of the undiluted tailpipe analytical system was also performed. Efficiency of the NO_x analyzer thermal converter was checked, strip chart recorders and other elements of the data acquisition system were aligned with analyzer outputs and the propane recovery test was performed. Calibration of the dynamometer speed meter and driver's aid recorder was also checked for accuracy and adjusted as needed.

Other minor laboratory maintenance and pre-test requirements were attended to during the daily three hour non-test period as needed.

2.6.4 Federal Exhaust Emission Test Procedure

The Federal Exhaust Emission Test was performed in accordance with those parts of 40 Federal Register 126 which deal with cold and hot start tests.

This test, commonly referred to as the Federal Test Procedure (FTP) is a test which utilizes a constant volume sampler (CVS) and which produces mass emission test results. It is preceded by a minimum vehicle soak period of twelve hours during which the vehicle remains unstarted and with all accessories off in ambient temperatures between 20° C and 30° C (68° F and 86° F). Maximum soak time for this program was limited to thirty-six hours.

At the end of the soak period the vehicle was placed on the dynamometer in preparation for the cold start portion of the test. A cooling fan which directs air to the vehicle only during exhaust sampling periods was situated with its center at the middle of the vehicle grille and twelve inches away. The engine compartment was fully opened and a collector tube which directs all exhaust to the CVS was attached to the vehicle tailpipe.

The FTP consists of three sampled portions. Background air and CVS diluted exhaust samples were collected for each portion. The cold transient portion is nominally 505 seconds long and covers a distance of 5.78 km (3.59 miles) at an average speed of 41.19 km/hr (25.6 mph). The cold stabilized portion is nominally 869 seconds in duration covering 6.21 km (3.86 miles) at an average speed of 25.74 km/hr (16.0 mph). The hot transient portion is a hot start repetition of the cold transient portion.

Cold transient CVS sampling commenced with engagement of the engine starter. The cold transient portion of the FTP driving schedule commenced with the starting of the engine. The time between starter engagement and the point at which the engine began to run of its own accord added to the sampling interval. Also, any stall encountered during this or the two subsequent FTP portions added to the sampling interval of the portion in which it occured. The driving schedule was stopped in place when a stall occured and was restarted from that same place after the engine was restarted. Cold transient sampling terminated at the 505 second point of the driving schedule.

Cold stabilized sampling commenced at the 505 second point of the driving schedule and terminated when the engine stopped running after the ignition was turned off at the 1372 second point, the end of the driving schedule. Any after-run of the engine added to the sampling period of this test portion.

A soak period of ten minutes followed the end of the cold stabilized portion. During this period the engine and cooling fan were off, the engine compartment was closed and the CVS exhaust collection tube was disconnected from the tailpipe. At 10 ± 1 minutes into the soak period, the engine compartment was re-opened, the collector tube was reconnected and the engine starter was engaged once more to begin the hot transient portion. The fan was turned on upon engagement of the starter and sampling also commenced. Hot transient sampling continued to the 505 second point of the schedule at which time the test was concluded.

2.6.5 50 (mph) Cruise Test Procedure

In this case the 50 Cruise Test was conducted during the three minute period of 80.5 km/hr (50 mph) preconditioning which preceded the Highway Fuel Economy Test.

Undiluted HC, CO and NO_x emission measurements were taken in connection with this test. Equilibrium of vehicle speed, engine speed and analyzer traces were obtained before the reported test readings were bracketed and integrated.

The 50 Cruise Test was inherently preceded by a sustained period of vehicle operation (eg, the 1,372 second FTP driving schedule) by reason of its connection with preconditioning for the Highway Fuel Economy Test.

2.6.6 Highway Fuel Economy Test Procedure

The Highway Fuel Economy Test (HFET) was started within the fifteen minute period following conclusion of the FTP. Unsampled vehicle operation over the 1,372 second FTP driving schedule preceded this test if more than thirty-five minutes elasped between the conclusion of the FTP and the beginning of the HFET.

The test was immediately preceded by the three minute period of operation at 80.5 km/hr (50 mph) during which the 50 Cruise Test was performed. Within one minute following the end of this period the vehicle was brought to idle and the HFET driving schedule was begun. CVS sampling commenced upon commencement of the schedule and continued to the end of the 765 second, 16.4 km (10.2 miles) HFET driving schedule.

Fuel economy was calculated from emission results by means of the Federal Register-contained carbon balance equation. Power settings, inertia weights, emission sampling procedures, cooling air temperatures and cooling fan placement and operation were identical to those of the Federal Test Procedure.

2.6.7 Loaded Two Mode Test

The Loaded Two Mode Test employs volumetric exhaust emission sampling at one mode with the vehicle operating at 48.3 km/hr (30 mph) and 6.714 kw (9 hp) and at one with the engine idling with the transmission in neutral. Maximum duration of each mode was three minutes. Speed and HC, CO and NO_x equilibrium was maintained for thirty seconds before the reported readings were bracketed and integrated.

This test was preceded by a 6 ± 1 minute idle period with the underhood cooling fan on and the engine compartment open. At the end of this period the vehicle was operated, and emission readings were taken, at the cruise mode, then at the idle mode. Dynamometer inertia setting for the cruise mode was 1750 pounds.

2.6.8 Four Speed Idle Test

Also employing volumetric sampling, the Four Speed Idle is a test having four modes when automatic transmissions are involved and three when they are not. It was preceded by a 6 ± 1 minute idle period with the cooling fan on and the engine compartment open. Subsequent to this period the vehicle was operated in the order of: idle in neutral, idle at 2,500 engine rpm, idle in neutral and in the case of an automatic transmission-equipped vehicle, idle in drive with the brakes applied. The maximum period for each mode was three minutes. Speed and HC, CO and NO_x equilibrium was maintained for thirty seconds before the reported readings were bracketed and integrated.

2.6.9 Vehicle Inspection Procedure

The procedure used to determine incoming condition of the test vehicles consisted of the measurement of basic engine parameters and visual and funtional inspections of emission control systems, subsystems and parts. Parameters measured included those of idle speed, ignition timing and dwell and idle HC and CO emissions. Whether the idle mixture was rich or lean for the given vehicle was also determined by enriching the mixture with propane. Visual inspections were performed to determine: the presence or absence of the air pump, catalytic converter, idle adjustment limiters, modulators, delay valves and the like; the routing of wires, vacuum lines and the like; and any modifications which would affect emission control system operation including those to the fuel filler neck which enable the use of leaded fuel. Functional checks were performed to determine operational status of: the ignition, distributor and its advance-retard mechanisms; the carburetor and its vacuum and electrical control devices; the induction system and its sensors, switches, modulators, etc; the exhaust gas recirculation (EGR) system and associated vacuum and pressure devices, temperature sensing devices and so on.

2.6.10 Maintenance Procedures

The study design provided for nine separate maintenance steps (subsequently reduced to seven after two of the steps were dropped). Any one vehicle could qualify for as many as six maintenance steps (subsequently reduced to five), the number and type dictated by the category of failures recorded at the Texas State Emission Testing Center inspection and by the condition and performance of the car as determined from the emission component checks and subsequent dyno testing. Figures 1 and 2 illustrate the progress of a test vehicle which failed its inspection and which maintenance actions were performed for the vehicle. In order to avoid confusion between Test Sequences #1 and #2 and I/M Lane Tests #1 and #2, the test sequences were numbered #11 through #20.

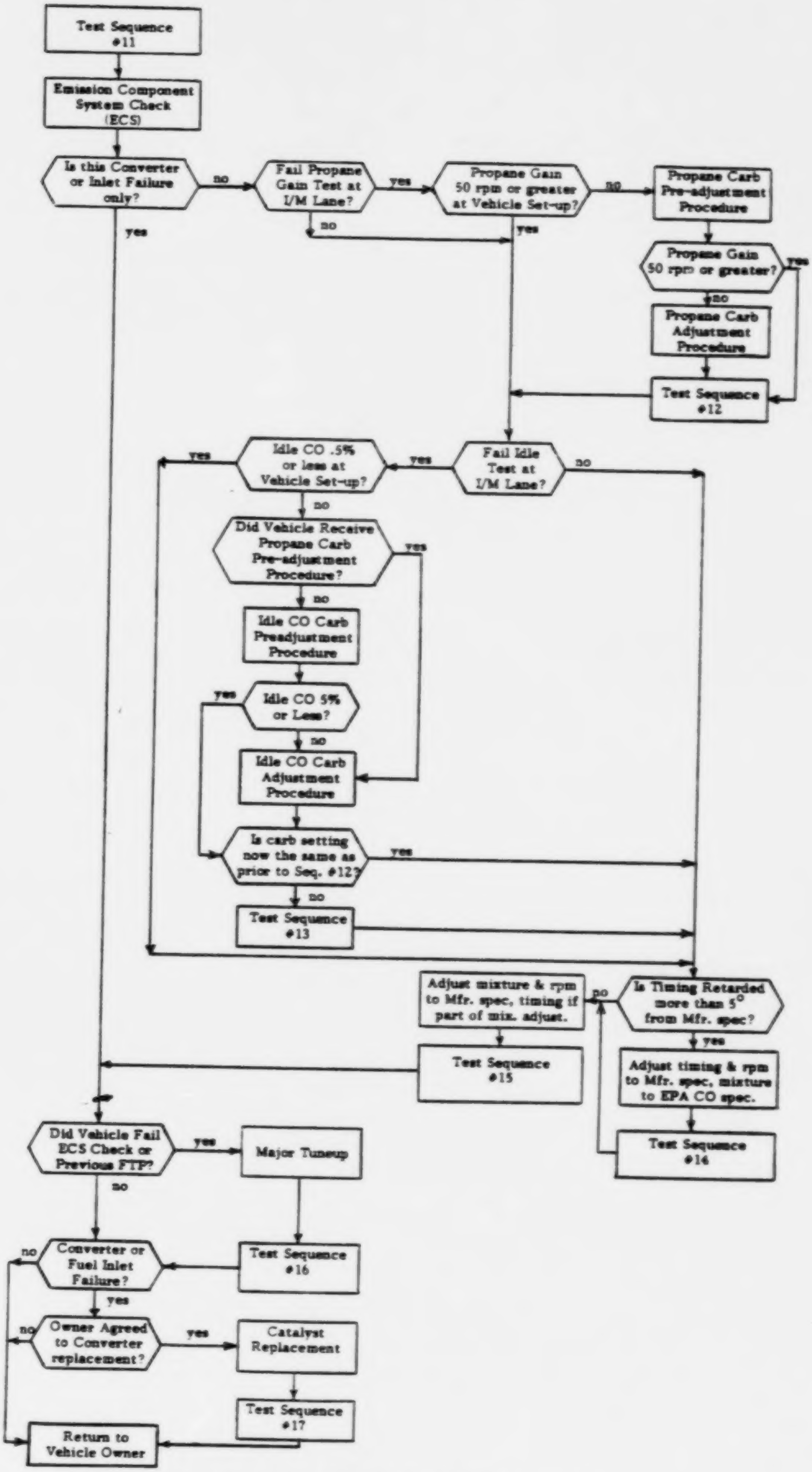
Test Sequence #11
Emission Component System Check (ECS)
Is this Converter or Inlet Failure only?
no
yes
Fail Propane Gain Test at I/M Lane?
yes
no
Propane Gain 50 rpm or greater at Vehicle Set-up?
no
yes
Propane Carb Pre-adjustment Procedure
Propane Gain 50 rpm or greater?
yes
no
Propane Carb Adjustment Procedure
Test Sequence #12
Idle CO .5% or less at Vehicle Set-up?
yes
yes
Fail Idle Test at I/M Lane?
no
no
Did Vehicle Receive Propane Carb Pre-adjustment Procedure?
yes
no
Idle CO Carb Preadjustment Procedure
yes
Idle CO 5% or Less?
no
Idle CO Carb Adjustment Procedure
Is carb setting now the same as prior to Seq. #12?
yes
no
Test Sequence #13
Adjust mixture & rpm to Mfr. spec, timing if part of mix. adjust.
no
Is Timing Retarded more than 5° from Mfr. spec?
yes
Test Sequence #15
Adjust timing & rpm to Mfr. spec, mixture to EPA CO spec.
Test Sequence #14
Did Vehicle Fail ECS Check or Previous FTP?
yes
Major Tuneup
no
no
Converter or Fuel Inlet Failure?
Test Sequence #16
yes
no
Owner Agreed to Converter replacement?
yes
Catalyst Replacement
Test Sequence #17
Return to Vehicle Owner

Figure 1, Maintenance Actions for Failed Vehicles Not Equipped with Sealed Carburetors

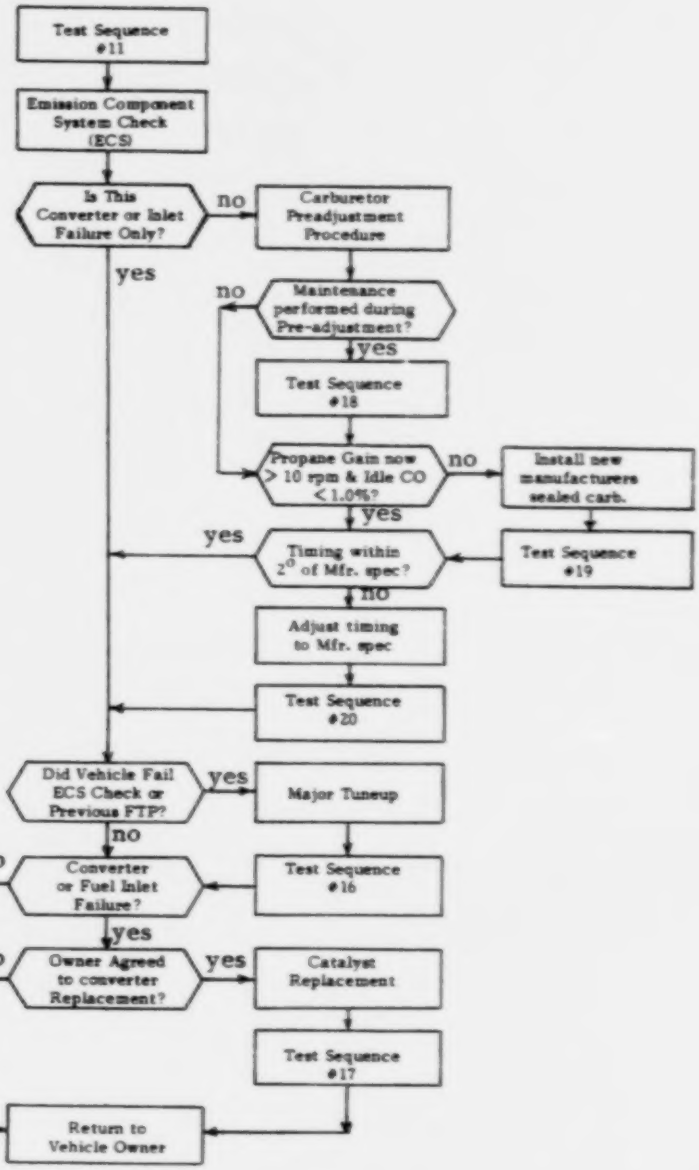
Test Sequence #11
Emission Component System Check (ECS)
Is This Converter or Inlet Failure Only?
no
yes
Carburetor Preadjustment Procedure
no
Maintenance performed during Pre-adjustment?
yes
Test Sequence #18
Propane Gain now > 10 rpm & Idle CO < 1.0%?
no
Install new manufacturers sealed carb.
yes
yes
Timing within 2° of Mfr. spec?
Test Sequence #19
no
Adjust timing to Mfr. spec
Test Sequence #20
Did Vehicle Fail ECS Check or Previous FTP?
yes
Major Tuneup
no
no
Converter or Fuel Inlet Failure?
Test Sequence #16
yes
no
Owner Agreed to converter Replacement?
yes
Catalyst Replacement
Test Sequence #17
Return to Vehicle Owner

Figure 2, Maintenance Actions for Failed Vehicles Equipped with Sealed Carburetors

A summary of each maintenance step of the study follows.

Sequence #11. Vehicles undergoing this sequence were in as-received condition. No maintenance had been performed.

Sequence #12. Vehicles without sealed carburetors which had failed the propane gain portion of the I/M Lane Test were subjected to the Carburetor Pre-adjustment Procedure. The pre-adjustment procedure stipulated that vacuum connections be checked and corrected, if needed; choke, heated air intake and PCV system were checked, and corrected as needed; the air cleaner was checked and cleaned or changed, as needed; and the crankcase oil was checked and changed, if necessary. If, after the pre-adjustment procedure, the Universal Propane Standard of forty to sixty rpm gain had not been achieved, the Propane Carburetor Adjustment Procedure was performed. The adjustment procedure stipulated a number of steps during which the idle mixture and speed were adjusted until a forty-to-sixty gain was achieved.

Sequence #13. Vehicles without sealed carburetors which had failed CO and/or HC on the idle portion of the I/M Lane Test were subjected to the Carburetor Pre-adjustment Procedure unless the vehicle was given the pre-adjustment procedure during Sequence #12 (the pre-adjustment procedure for Sequences #12 and #13 were identical). If the pre-adjustment procedure failed to cause the vehicle to meet the Universal CO Standard of .4 to .6 per cent, the Idle CO Carburetor Adjustment Procedure was performed. The CO adjustment procedure stipulated a number of steps during which the idle mixture and speed were adjusted until a reading of .4 to .6 per cent was achieved. If, at set-up (prior to any adjustment or maintenance actions being performed), the idle CO reading was at .5 per cent or less (i.e., the vehicle failed HC only), Sequence #13 was not performed.

Sequence #14. Vehicles without sealed carburetors on which the timing was retarded more than five degrees from manufacturers specifications were given a timing adjustment. Sequence #14 was subsequently dropped.

Sequence #15. Vehicles without sealed carburetor which failed the idle or propane tests, or both, were adjusted to manufacturers specification. The adjustments were idle speed and idle mixture, and timing if it was specified as part of the mixture adjustment.

Sequence #16. All failed vehicles were eligible for this sequence, for which a vehicle qualified if it failed either an item on the as-received emission component check or failed standards on the FTP run immediately prior to the Sequence #16. Cars undergoing a Sequence #16 had all maladjustments, disablements and failed emission components repaired or replaced and were given a manufacturer's specified normal tuneup. Standards for the FTP were:

Model Year	HC	CO
1975-1979	1.80	18.0
1980	0.49	8.4

Sequence #17. All vehicles which failed either the inlet or the catalyst inspection and whose owners consented to having the catalyst replaced were eligible.

The old catalyst was removed and replaced with a new one purchased from a manufacturer distributer.

Sequence #18. Vehicles having sealed carburetors and which failed the idle and/or propane gain portion(s) of the I/M Lane Test were subjected to the Sealed Carburetor Pre-adjustment Procedure. This procedure stipulates two aspects, one for vehicles which failed the propane gain portion of the I/M Lane test and one for those which failed the idle portion. Vehicles which failed both were subjected to the two aspects concurrently. The procedure consisted of checking and correcting the following until the desired readings (forty to sixty rpm propane gain and/or .4 to .6 per cent CO) were attained: vacuum lines, dirty air filter, choke, heated air intake system and PCV system including crankcase oil.

Sequence #19. Vehicles having sealed carburetors which, after Sequence #18, still had readings of greater than 1.0 per cent CO and/or propane gain of less than ten rpm were submitted to Sequence #19. The as-received sealed carburetor was removed and replaced with a new sealed carburetor purchased from a manufacturer distributor.

An extension of Sequence #19 occurred after all other testing on the vehicle was completed. The new sealed carburetor was removed and the as-received sealed carburetor was broken open at the seals and replaced on the car by an ATL automotive technician. The technician attempted to adjust the as-received carburetor to forty to sixty rpm propane gain and .4 to .6 per cent CO readings. The rpm propane gain and per cent CO readings which actually were achieved were recorded and dated. The automotive technician lastly replaced the newly purchased carburetor on the vehicle prior to its return to the vehicle owner.

Sequence #20. Vehicles having sealed carburetors on which timing was not within two degrees of manufacturers specification were given a timing adjustment. This sequence was subsequently dropped.

2.6.11 Daily Test Schedule Procedure

Overall program scheduling was dictated by personnel, equipment and facility availability and the time constraint of the contract. These factors also dictated the daily testing rates.

Tests were performed on a three shift per day, six day per week basis. Work shifts for the most part began at 7:00 AM, 3:00 PM and 11:00 PM. Tests were not generally scheduled between the hours of 4:00 PM and 7:00 PM. Daily equipment quality assurance checks were performed during this period. Some weekly and bi-weekly equipment calibrations and checks were also performed during this period, as well as during unscheduled breaks in the testing schedule. Most weekly and bi-weekly calibration activities were performed on the one day of the week when tests were not scheduled.

Vehicle acceptance activities generally took place between the morning hours of 7:00 - 9:00 and the evening hours of 5:00 - 7:00 as a convenience to participants.

Vehicle throughput averaged nine tests per day. Each car was given a baseline test sequence, with the vehicle in the as-received condition. After each maintenance step the vehicle was subjected to a replicate test sequence to evaluate the effects of the maintenance action.

2.7 DATA HANDLING

2.7.1 Data Collection

Many parameters directly associated with the emission tests were recorded on strip charts. Included were: temperature of the soak area, wet and dry bulb temperatures of air supplied to the vehicle under test, temperature of the CVS dilution air/exhaust gas mixing point and the output of each emission analyzer. Barometric pressure was recorded on a seven day circular chart. Recorders monitoring emission analyzer outputs were allowed to run continuously during calibration and emission analysis. An on-line mini-computer was used to integrate analyzer readings during diluted and undiluted emission analysis and as a cross check to verify analyzer deflections and ranges in use. Other test data were manually collected and recorded.

2.7.2 Data Processing

After an on-site review, raw data in the form of individual test packets were shipped from the testing site to ATL's data processing center in Denver for final review and disposition. Processing of the raw data was performed manually and by computer. A large scale time-sharing system was used to perform the computerized part of processing operations. Manual processing consisted of combining data from the raw data sheets with magnetic tape-contained data from the on-line computer into a single tape. Once combined, these data were transferred to the time-share system where they were subjected to additional manual and computerized review and edit operations. Corrections to the computer contained data files were made as necessary. The corrected data were subsequently computer reduced, output and reported on a monthly basis.

2.7.3 Quality Control

Quality of the test data was assured through reviews and edits which were conducted at several stages in the collection and subsequent handling processes.

The first of two reviews was conducted at the testing site. Following completion of each test sequence all data were collected and assembled into a single test packet. Materials in the test packet included: data sheets used to identify the vehicle, vehicle exchange agreements, the completed vehicle-owner questionnaire, raw data sheets associated with each test in the sequence, analyzer strip chart recordings and on-line computer magnetic tape printouts, cooling air temperature and humidity recordings for each test in the sequence and data sheets used to document vehicle preparation procedures and inspection results. Upon assembly, each of these materials was reviewed for completeness and accuracy. This review was started as soon after test sequence completion as practicable in an effort to have it completed before the vehicle started into another testing sequence or was returned to its owner. The practice of early review was employed for two reasons: to keep the necessity for vehicle recall and retest to a minimum and to facilitate immediate feedback to test personnel of errors and omissions as they emerged. Following this part of the quality assurance program the test packets were shipped to Denver.

Soak area temperature traces, raw data sheets and strip chart recordings used to document periodic calibrations and checks of the test equipment and other materials common to tests on a group of vehicles were subjected to a similar review, packaged and sent to Denver.

Upon arrival in Denver, each packet was reviewed a second time for completeness and accuracy. Following this review data from the raw data sheets were manually combined with magnetic tape contained data from the on-line computer and a single magnetic tape was produced. Data from this tape was subsequently placed into the time-share computer. Printed lists generated by the computer were proofread against the original data. Corrections were made to the computer stored data, as necessary.

A computerized edit progam was applied to the stored data after the more obvious errors had been corrected and data files were complete. This edit program examines each data entry for keying errors and for logical and tolerance deviations from established criteria. Errors determined in connection with this process were resolved by one or more of a number of means including communication with on-site testing personnel, more detailed reviews of test documentation and, as necessary, by recall and reinspection or retesting of the vehicle in question.

A "dump" sheet containing the reduced data was subsequently produced. Each entry on the dump sheet was checked for reasonableness and accuracy. Reasonableness was established on the basis of one data point relative to another, a single data point relative to a composite of data points and both single and composite data points relative to the weight, engine size, model-year, maintenance state and other pertinent characteristics of the vehicle.

Errors found in the course of on-site reviews were usually associated with inconsistencies between materials in the test packet (eg, information on the vehicle-owner questionnaire conflicted with that of the after-test vehicle inspection) and errors in transposing data from strip charts to raw data sheets (eg, analyzer ranges and deflections). Problems dealt with in subsequent stages of review were most frequently associated with insufficient verbal information backing up numerical emission component failure and vehicle maintenance action codes and inconsistencies in responses within the vehicle-owner questionnaire.

2.7.4 Calculation of Results

Results for the mass emission tests (i.e., those employing the CVS) are calculated by means of the formulae of 40 Federal Register 126. Although actual distances traveled by the test vehicle were measured in connection with the tests, these distances were not used in the calculations. Distance constants of the 40 Federal Register 126 exhaust emission test (FTP) driving schedule and distance constants of other of the mass emission tests are respectively used, instead. The equations of 40 Federal Register 126 applied to the FTP and to the Highway Fuel Economy Test.

The carbon balance equations of 42 Federal Register 176 which take mass HC, CO and CO_2 emissions into account were used to calculate fuel economy data for the above tests. The distance constants associated with each test were respectively used for fuel economy calculations as well.

Volumetric test results are reported as measured. Volumetric results applied to the 50 Cruise Test, the Loaded Two Mode Test, and the Four Speed Idle Test.

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                         EMISSION RESULTS
VEH.                                            ---------- GRAMS / MILE ----------          FUEL
 NO.   YR MAKE CID     ENGINE FAMILY              HC      CO      CO2     NOxc    CH4   ECON
----   -- ---- --- -----------------            -----   -----   -----   -----   ----   MPG
9010   79 BUIC 350 930M4U/9B4-3                                                         ---

          PRELIMINARY LANE TEST:
          CAT: P      FUEL: P
          HC:  456    CO:  2.79    GAIN:   0

          SEQ#11 FEDERAL TEST PROC.        1.79    20.8    560.1    2.92           14.8
          SEQ#11 50 MPH CRUISE            34.2     0.01            787.5
          SEQ#11 HIGHWAY FUEL ECON.        0.24     1.9    415.3    2.80           21.2
          SEQ#11 4 SPD IDLE (NEUT)       495.1     2.07             42.5
          SEQ#11 4 SPD IDLE (2500)        47.4     0.01            231.9
          SEQ#11 4 SPD IDLE (NEUT)       459.3     1.14             30.0
          SEQ#11 4 SPD IDLE (DRIV)       344.0     2.35             57.5
          SEQ#11 FED 2 MODE (30)          63.8     0.02           1267.5
          SEQ#11 FED 2 MODE (NEUT)       549.0     0.65             35.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                    FUEL FILTER, OIL FILTER, PCV VALVE, ADJUSTED
                    TIMING AND SPEED.

          SEQ#16 FEDERAL TEST PROC.        1.39    12.8    577.5    2.01           14.7
          SEQ#16 50 MPH CRUISE            14.4     0.00            555.0
          SEQ#16 HIGHWAY FUEL ECON.        0.17     1.0    429.5    2.26           20.6
          SEQ#16 4 SPD IDLE (NEUT)       374.9     0.92             42.1
          SEQ#16 4 SPD IDLE (2500)        20.7     0.01            177.8
          SEQ#16 4 SPD IDLE (NEUT)       276.9     0.79             31.6
          SEQ#16 4 SPD IDLE (DRIV)       255.7     1.72             68.1
          SEQ#16 FED 2 MODE (30)          43.1     0.02            691.5
          SEQ#16 FED 2 MODE (NEUT)       286.7     0.04             11.5

          FOLLOW UP LANE TEST:
          CAT: P      FUEL: P
          HC:  278    CO:   1.39    GAIN:  60

          COMMENT : CHANGED OIL ON PROPANE PROCEDURE TO A 50 RPM GAIN.
                      USING CO PROCEDURE COULDN'T GET IT BELOW .5%.
                    PULLED OUT PCV VALVE, CO WENT DOWN TO .21%.

          SEQ#18 FEDERAL TEST PROC.        1.48    12.4    573.0    2.91           14.9
          SEQ#18 50 MPH CRUISE            24.3     0.01            640.9
          SEQ#18 HIGHWAY FUEL ECON.        0.15     0.7    419.2    2.76           21.1
          SEQ#18 4 SPD IDLE (NEUT)       461.6     0.45             27.5
          SEQ#18 4 SPD IDLE (2500)        27.3     0.01            199.6
          SEQ#18 4 SPD IDLE (NEUT)       352.8     0.28             17.7
          SEQ#18 4 SPD IDLE (DRIV)       265.1     0.97             58.2
          SEQ#18 FED 2 MODE (30)          38.5     0.02            946.9
          SEQ#18 FED 2 MODE (NEUT)       205.4     0.04             12.3

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                 AUTOMOTIVE TESTING LABORATORIES,INC.

                         TEXAS PILOT I/M STUDY


                        LISTING OF TEST RESULTS
                              HOUSTON #2

                                                     EMISSION RESULTS                FUEL
VEH.                                        --------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2      NOxc    CH4    MPG
----   -- ---- --- ----------------        -----   -----   ------   -----   ----    ----
9010   79 BUIC 350 930M4U/9B4-3      (CON'T)

          COMMENT : ADJUSTED TIMING TO SPEC.

          SEQ#20 FEDERAL TEST PROC.        1.47    12.2    579.6    2.21            14.7
          SEQ#20 50 MPH CRUISE             25.6    0.01           538.8
          SEQ#20 HIGHWAY FUEL ECON.        0.14     0.6    427.9    2.15            20.7
          SEQ#20 4 SPD IDLE (NEUT)        430.4    0.81             35.9
          SEQ#20 4 SPD IDLE (2500)         25.0    0.01            176.0
          SEQ#20 4 SPD IDLE (NEUT)        302.2    0.80             30.7
          SEQ#20 4 SPD IDLE (DRIV)        262.8    1.49             59.4
          SEQ#20 FED 2 MODE (30)           34.8    0.02            808.7
          SEQ#20 FED 2 MODE (NEUT)        454.9    0.14             19.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  421   CO:  3.55    GAIN:  20


9014   79 BUIC 403 930M4U/9B4-3

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  287   CO:  2.08    GAIN:   0

          SEQ#11 FEDERAL TEST PROC.        1.82    15.5    610.5    1.95            13.9
          SEQ#11 50 MPH CRUISE             14.1    0.00            589.4
          SEQ#11 HIGHWAY FUEL ECON.        0.19     1.3    470.7    2.47            18.7
          SEQ#11 4 SPD IDLE (NEUT)        200.1    0.36             13.5
          SEQ#11 4 SPD IDLE (2500)          6.9    0.01            149.1
          SEQ#11 4 SPD IDLE (NEUT)        118.1    0.25             14.4
          SEQ#11 4 SPD IDLE (DRIV)        173.7    0.67             31.7
          SEQ#11 FED 2 MODE (30)           27.3    0.01            437.7
          SEQ#11 FED 2 MODE (NEUT)         29.9    0.01             54.1

          NO FOLLOW UP LANE TEST DONE


          COMMENT : CARBURETOR INSTALLED

          SEQ#19 FEDERAL TEST PROC.        0.68     3.5    647.1    2.11            13.6
          SEQ#19 50 MPH CRUISE              2.3    0.01            558.0
          SEQ#19 HIGHWAY FUEL ECON.        0.10     0.5    480.9    2.38            18.4
          SEQ#19 4 SPD IDLE (NEUT)          0.0    0.00             57.8
          SEQ#19 4 SPD IDLE (2500)          0.0    0.01            146.7
          SEQ#19 4 SPD IDLE (NEUT)          0.0    0.00             59.1
          SEQ#19 4 SPD IDLE (DRIV)          0.0    0.00             85.9
          SEQ#19 FED 2 MODE (30)            3.6    0.00            385.2
          SEQ#19 FED 2 MODE (NEUT)          8.9    0.00             54.4

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  178   CO:  0.23    GAIN:  90



 [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                    FUEL
VEH.                                      --------- GRAMS / MILE ----------              ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO      CO2      NOxc     CH4        MPG
----   -- ---- --- ----------------       -----   -----   ------   -----    ----        ----
9014   79 BUIC 403 930M4U/9B4-3     (CON'T)

          COMMENT : TIMING RESET TO +20 AT 1100 RPM, PER EMISSION
                    DECAL.

          SEQ#20 FEDERAL TEST PROC.       0.88     8.0    648.6     1.57                13.4
          SEQ#20 50 MPH CRUISE             3.3    0.01            441.8
          SEQ#20 HIGHWAY FUEL ECON.       0.10     1.0    477.3     1.92                18.5
          SEQ#20 4 SPD IDLE (NEUT)         0.0    0.01             63.5
          SEQ#20 4 SPD IDLE (2500)         0.0    0.01            133.7
          SEQ#20 4 SPD IDLE (NEUT)         0.0    0.00             61.0
          SEQ#20 4 SPD IDLE (DRIV)         0.0    0.00             79.8
          SEQ#20 FED 2 MODE (30)           0.3    0.01            333.6
          SEQ#20 FED 2 MODE (NEUT)         1.3    0.01             53.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   46  CO:  0.04   GAIN: 110

9019   79 CHEV 098 910W2 / 9B5-1

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  168  CO:  3.78   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.       1.98    24.8    300.7     1.27                25.7
          SEQ#11 50 MPH CRUISE            25.0    0.02           1104.7
          SEQ#11 HIGHWAY FUEL ECON.       0.14     1.8    240.3     1.93                36.4
          SEQ#11 4 SPD IDLE (NEUT)       195.0    3.43             27.2
          SEQ#11 4 SPD IDLE (2500)       150.7    3.65            133.1
          SEQ#11 4 SPD IDLE (NEUT)       186.0    3.04             37.8
          SEQ#11 FED 2 MODE (30)          37.8    0.02           1114.7
          SEQ#11 FED 2 MODE (NEUT)       141.7    3.33             54.2

          NO FOLLOW UP LANE TEST DONE

          COMMENT : REPLACED SPARK PLUGS,OIL AND OIL FILTER,PCV VALVE,
                    AIR FILTER ELEMENT,GAS FILTER.SET TO SPEC.EPA
                    COULD NOT SUPPLY A CARBURETOR FOR SEQUENCE 19.

          SEQ#16 FEDERAL TEST PROC.       1.61    19.5    305.2     1.15                26.0
          SEQ#16 50 MPH CRUISE            22.3    0.01           1282.5
          SEQ#16 HIGHWAY FUEL ECON.       0.12     1.3    240.6     2.02                36.5
          SEQ#16 4 SPD IDLE (NEUT)       180.0    2.13             52.7
          SEQ#16 4 SPD IDLE (2500)       111.5    2.32            211.1
          SEQ#16 4 SPD IDLE (NEUT)       186.0    2.38             49.5
          SEQ#16 FED 2 MODE (30)          37.1    0.01           1149.8
          SEQ#16 FED 2 MODE (NEUT)       189.4    2.70             72.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  168  CO:  3.53   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                 FUEL
VEH.                                          ---------- GRAMS / MILE ----------        ECON
NO.   YR MAKE CID     ENGINE FAMILY       HC      CO      CO2     NOxc    CH4          MPG
----  -- ---- --- -----------------  -----   -----   ------   -----   ----         ----
9019  79 CHEV 098 910W2 / 9B5-1    (CON'T)

          COMMENT : ALL PRE-ADJUSTMENTS DONE FOR BOTH PROPANE GAIN
                    AND CO,WITH NEGATIVE RESULTS.

          SEQ#18 FEDERAL TEST PROC.    1.68    21.1    313.3    1.26                 25.2
          SEQ#18 50 MPH CRUISE        16.4     0.01           1260.0
          SEQ#18 HIGHWAY FUEL ECON.    0.13     1.7    249.3    2.20                 35.2
          SEQ#18 4 SPD IDLE (NEUT)   171.7     2.82              37.6
          SEQ#18 4 SPD IDLE (2500)   115.8     2.64             190.4
          SEQ#18 4 SPD IDLE (NEUT)   176.7     3.01              43.7
          SEQ#18 FED 2 MODE (30)      37.1     0.01            1209.9
          SEQ#18 FED 2 MODE (NEUT)   174.7     3.12              63.2

          NO FOLLOW UP LANE TEST DONE


9020  79 CHEV 098 910W2 / 9B5-1

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   46  CO:  0.47   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    0.80    14.2    349.9    1.45                 23.7
          SEQ#11 50 MPH CRUISE         3.9     0.01             391.2
          SEQ#11 HIGHWAY FUEL ECON.    0.05     0.8    299.6    1.30                 29.5
          SEQ#11 4 SPD IDLE (NEUT)     4.6     0.00              77.9
          SEQ#11 4 SPD IDLE (2500)    51.3     1.79              89.8
          SEQ#11 4 SPD IDLE (NEUT)     6.9     0.00              89.7
          SEQ#11 4 SPD IDLE (DRIV)     4.9     0.00             133.7
          SEQ#11 FED 2 MODE (30)       5.3     0.00             673.3
          SEQ#11 FED 2 MODE (NEUT)     3.0     0.00              85.1

          NO FOLLOW UP LANE TEST DONE


          COMMENT : CARBURETOR INSTALLED.

          SEQ#19 FEDERAL TEST PROC.    0.53    13.6    339.0    1.29                 24.5
          SEQ#19 50 MPH CRUISE         0.0     0.00             245.7
          SEQ#19 HIGHWAY FUEL ECON.    0.03     0.3    290.5    1.08                 30.5
          SEQ#19 4 SPD IDLE (NEUT)     3.3     0.00              56.8
          SEQ#19 4 SPD IDLE (2500)    19.0     0.44              96.2
          SEQ#19 4 SPD IDLE (NEUT)     3.6     0.00              54.4
          SEQ#19 4 SPD IDLE (DRIV)     4.3     0.00             121.9
          SEQ#19 FED 2 MODE (30)       6.6     0.00             446.8
          SEQ#19 FED 2 MODE (NEUT)     3.3     0.00              58.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   72  CO:  0.91   GAIN:  50
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                     FUEL
                                              --------- GRAMS / MILE ----------              ECON
VEH.
 NO.  YR MAKE CID     ENGINE FAMILY           HC       CO      CO2      NOxc      CH4     MPG
----  -- ---- --- ------------------       -----    -----   -----    -----     ----     ----
9021  79 CHEV 098 910W2 / 9B5-1

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  233   CO:  3.97   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.   2.14     36.9    397.4     1.66               19.2
          SEQ#11 50 MPH CRUISE        1.0      0.01            431.7
          SEQ#11 HIGHWAY FUEL ECON.   0.22      4.6    305.7     1.66               28.3
          SEQ#11 4 SPD IDLE (NEUT)   96.9      2.77            132.6
          SEQ#11 4 SPD IDLE (2500)   84.7      2.64            155.0
          SEQ#11 4 SPD IDLE (NEUT)   94.9      2.64            151.6
          SEQ#11 4 SPD IDLE (DRIV)  183.0      2.34            807.7
          SEQ#11 FED 2 MODE (30)     20.0      0.09            440.8
          SEQ#11 FED 2 MODE (NEUT)   82.0      2.12            177.5

          NO FOLLOW UP LANE TEST DONE

          COMMENT : CHANGED OIL AND REPLACED AIR FILTER ELEMENT.IDLE
                    NEUTRAL 1800 RPM.

          SEQ#18 FEDERAL TEST PROC.   1.14     20.4    406.4     1.73               20.1
          SEQ#18 50 MPH CRUISE        2.0      0.01            611.6
          SEQ#18 HIGHWAY FUEL ECON.   0.12      2.6    310.4     1.78               28.2
          SEQ#18 4 SPD IDLE (NEUT)   75.1      1.85            200.6
          SEQ#18 4 SPD IDLE (2500)   64.2      1.68            253.7
          SEQ#18 4 SPD IDLE (NEUT)   65.2      1.49            217.0
          SEQ#18 4 SPD IDLE (DRIV)  168.3      1.32           1427.8
          SEQ#18 FED 2 MODE (30)      5.9      0.01            971.9
          SEQ#18 FED 2 MODE (NEUT)    1.3      0.33             58.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : INSTALLED CARBURETOR.

          SEQ#19 FEDERAL TEST PROC.   0.53      8.4    391.7     1.36               21.8
          SEQ#19 50 MPH CRUISE        0.0      0.01            382.1
          SEQ#19 HIGHWAY FUEL ECON.   0.04      0.4    313.5     1.32               28.2
          SEQ#19 4 SPD IDLE (NEUT)    0.0      0.02             82.0
          SEQ#19 4 SPD IDLE (2500)   17.4      0.26            219.4
          SEQ#19 4 SPD IDLE (NEUT)    1.0      0.02             91.6
          SEQ#19 4 SPD IDLE (DRIV)    4.6      0.01            361.9
          SEQ#19 FED 2 MODE (30)     10.8      0.01            555.0
          SEQ#19 FED 2 MODE (NEUT)    1.6      0.03            108.8

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    4   CO:  0.07   GAIN: 100
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
9027	79	CHEV	250	910F1H / 9B1-1						
PRELIMINARY LANE TEST: CAT: P FUEL: P HC: 549 CO: 2.82 GAIN: 20										
SEQ#11 FEDERAL TEST PROC.					3.15	46.8	445.6	2.42		16.8
SEQ#11 50 MPH CRUISE					15.8	0.02		1420.3		
SEQ#11 HIGHWAY FUEL ECON.					0.30	2.7	336.0	3.93		26.0
SEQ#11 4 SPD IDLE (NEUT)					326.4	3.39		26.9		
SEQ#11 4 SPD IDLE (2500)					14.1	0.01		284.1		
SEQ#11 4 SPD IDLE (NEUT)					307.2	3.48		29.0		
SEQ#11 FED 2 MODE (30)					94.3	0.28		725.8		
SEQ#11 FED 2 MODE (NEUT)					282.0	3.59		29.6		
NO FOLLOW UP LANE TEST DONE										
COMMENT : ADJUSTED IDLE NEUTRAL 800 RPM, CO .4%, HC 900 PPM.										
SEQ#13 FEDERAL TEST PROC.					1.60	16.6	471.6	2.82		17.7
SEQ#13 50 MPH CRUISE					6.9	0.01		1247.5		
SEQ#13 HIGHWAY FUEL ECON.					0.07	0.7	327.4	3.77		27.0
SEQ#13 4 SPD IDLE (NEUT)					172.0	0.27		16.5		
SEQ#13 4 SPD IDLE (2500)					6.2	0.01		292.2		
SEQ#13 4 SPD IDLE (NEUT)					109.8	0.15		8.9		
SEQ#13 FED 2 MODE (30)					8.5	0.01		798.6		
SEQ#13 FED 2 MODE (NEUT)					359.5	0.15		8.2		
NO FOLLOW UP LANE TEST DONE										
COMMENT : ADJUSTED IDLE SPEED AND MIXTURE.										
SEQ#15 FEDERAL TEST PROC.					0.89	7.5	489.7	2.86		17.6
SEQ#15 50 MPH CRUISE					1.0	0.01		1027.0		
SEQ#15 HIGHWAY FUEL ECON.					0.05	0.6	332.3	3.45		26.6
SEQ#15 4 SPD IDLE (NEUT)					3.3	0.01		48.5		
SEQ#15 4 SPD IDLE (2500)					1.0	0.01		228.1		
SEQ#15 4 SPD IDLE (NEUT)					10.5	0.01		54.8		
SEQ#15 FED 2 MODE (30)					1.3	0.01		618.7		
SEQ#15 FED 2 MODE (NEUT)					25.6	0.01		67.7		
NO FOLLOW UP LANE TEST DONE										

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
9027	79	CHEV	250	910F1H / 9B1-1 (CON'T)

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR, FUEL, OIL AND CRANKCASE BREATHER FILTERS, PCV VALVE, ADJUSTED IDLE MIXTURE AND SPEED.

	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	0.85	7.6	510.9	3.02		16.9
SEQ#16 50 MPH CRUISE	2.6	0.01		1019.5		
SEQ#16 HIGHWAY FUEL ECON.	0.04	0.2	329.3	3.14		26.9
SEQ#16 4 SPD IDLE (NEUT)	5.3	0.01		83.7		
SEQ#16 4 SPD IDLE (2500)	1.0	0.01		256.8		
SEQ#16 4 SPD IDLE (NEUT)	8.5	0.01		85.3		
SEQ#16 FED 2 MODE (30)	16.7	0.02		636.9		
SEQ#16 FED 2 MODE (NEUT)	76.4	0.01		106.7		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 13 CO: 0.02 GAIN: 40

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
9051	79	CHRY	360	FD3602CA/9E6/1

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 198 CO: 2.55 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	1.33	28.3	650.4	1.61		12.7
SEQ#11 50 MPH CRUISE	6.9	0.01		726.9		
SEQ#11 HIGHWAY FUEL ECON.	0.19	2.2	410.5	3.22		21.4
SEQ#11 4 SPD IDLE (NEUT)	7.5	0.11		7.4		
SEQ#11 4 SPD IDLE (2500)	0.0	0.00		190.6		
SEQ#11 4 SPD IDLE (NEUT)	1.3	0.04		19.0		
SEQ#11 4 SPD IDLE (DRIV)	2.3	0.01		40.1		
SEQ#11 FED 2 MODE (30)	13.5	0.01		435.7		
SEQ#11 FED 2 MODE (NEUT)	11.5	0.04		34.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPMS, PROPANE GAIN 50 RPMS.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	0.99	14.8	672.3	1.72		12.7
SEQ#12 50 MPH CRUISE	3.6	0.01		633.9		
SEQ#12 HIGHWAY FUEL ECON.	0.14	1.9	401.1	2.92		21.9
SEQ#12 4 SPD IDLE (NEUT)	6.6	0.02		47.3		
SEQ#12 4 SPD IDLE (2500)	0.0	0.01		188.3		
SEQ#12 4 SPD IDLE (NEUT)	0.7	0.01		50.6		
SEQ#12 4 SPD IDLE (DRIV)	1.6	0.01		71.1		
SEQ#12 FED 2 MODE (30)	6.2	0.01		379.1		
SEQ#12 FED 2 MODE (NEUT)	5.9	0.01		52.6		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                  EMISSION RESULTS                   FUEL
                                         --------- GRAMS / MILE ----------           ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2    NOxc   CH4         MPG
----  -- ---- --- -----------------     -----   -----  ------   -----  ----        ----
9051  79 CHRY 360 FD3602CA/9E6/1    (CON'T)

          COMMENT : ADJUSTED IDLE NEUTRAL 750 RPMS,PROPANE GAIN 140
                    RPMS,CO .03%,HC 25 PPM.

          SEQ#15 FEDERAL TEST PROC.    0.72     8.7   665.1    2.25              13.0
          SEQ#15 50 MPH CRUISE          2.0    0.01           586.3
          SEQ#15 HIGHWAY FUEL ECON.    0.09     0.9   408.0    3.25              21.7
          SEQ#15 4 SPD IDLE (NEUT)      5.9    0.01            52.5
          SEQ#15 4 SPD IDLE (2500)      0.0    0.01           172.7
          SEQ#15 4 SPD IDLE (NEUT)      0.3    0.01            55.5
          SEQ#15 4 SPD IDLE (DRIV)      1.6    0.01            78.5
          SEQ#15 FED 2 MODE (30)        6.6    0.01           421.6
          SEQ#15 FED 2 MODE (NEUT)      4.6    0.01            49.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   12  CO:  0.02   GAIN: 120

9052  79 CHRY 360 FD3602CA/9E6/1

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  129  CO:  0.96   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    0.80    12.7   576.8    1.63              14.8
          SEQ#11 50 MPH CRUISE          3.3    0.01           375.1
          SEQ#11 HIGHWAY FUEL ECON.    0.13     1.1   366.9    2.06              24.0
          SEQ#11 4 SPD IDLE (NEUT)     23.0    0.15            10.9
          SEQ#11 4 SPD IDLE (2500)      0.0    0.01           131.6
          SEQ#11 4 SPD IDLE (NEUT)     26.9    0.25            13.0
          SEQ#11 4 SPD IDLE (DRIV)      1.3    0.01            22.3
          SEQ#11 FED 2 MODE (30)       11.8    0.01           291.1
          SEQ#11 FED 2 MODE (NEUT)     32.5    0.13            22.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE SPEED 730 NEUTRAL, PROPANE GAIN 70 RPM.
                    THIS WAS MINIMUM PROPANE GAIN OBTAINABLE AT THIS
                    SPEED.  FURTHER ENRICHMENT RESULTED IN NO IDLE
                    RPM INCREASE.  FURTHER LEANING OF MIXTURE
                    RESULTED IN IDLE SPEED DROP AND GREATER PROPANE
                    RPM GAIN.

          SEQ#12 FEDERAL TEST PROC.    0.48     6.1   608.0    1.71              14.3
          SEQ#12 50 MPH CRUISE          0.0    0.00           263.9
          SEQ#12 HIGHWAY FUEL ECON.    0.07     0.4   359.1    1.73              24.7
          SEQ#12 4 SPD IDLE (NEUT)     26.9    0.01            38.1
          SEQ#12 4 SPD IDLE (2500)      0.0    0.00           103.1
          SEQ#12 4 SPD IDLE (NEUT)      6.2    0.00            41.9
          SEQ#12 4 SPD IDLE (DRIV)      3.9    0.00            58.6
          SEQ#12 FED 2 MODE (30)        2.3    0.01           227.5
          SEQ#12 FED 2 MODE (NEUT)     24.6    0.01            39.9

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                     FUEL
VEH.                                      --------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc    CH4         MPG
----   -- ---- --- ----------------       -----   -----   -----   -----    ----        ----
9052   79 CHRY 360 FD3602CA/9E6/1      (CON'T)

          COMMENT : IDLE MIXTURE AND SPEED SET TO SPEC. PROPANE
                    ENRICHMENT WITH EGR, ESC, PCV AND EVAP PURGE
                    LINES DISCONNECTED. EGR AND ESC LINES PLUGGED,
                    CARB SWITCH GROUNDED. ENRICHED RPM 890 IDLE 750.

          SEQ#15 FEDERAL TEST PROC.    0.48      7.0    625.3    1.77                   13.9
          SEQ#15 50 MPH CRUISE          6.9     0.01           303.3
          SEQ#15 HIGHWAY FUEL ECON.    0.06      0.3    368.2    1.84                   24.1
          SEQ#15 4 SPD IDLE (NEUT)     17.4     0.01            47.1
          SEQ#15 4 SPD IDLE (2500)      0.0     0.01           106.0
          SEQ#15 4 SPD IDLE (NEUT)      2.6     0.01            50.1
          SEQ#15 4 SPD IDLE (DRIV)      0.0     0.01            67.7
          SEQ#15 FED 2 MODE (30)        0.0     0.01           245.7
          SEQ#15 FED 2 MODE (NEUT)     15.8     0.01            45.7

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                    OIL FILTERS, PCV VALVE AND ENGINE OIL.  REPLACED
                    AIR INJECTION VALVE.  ADJUSTED TIMING, IDLE
                    MIXTURE AND SPEED PER EPA PROCEDURES.

          SEQ#16 FEDERAL TEST PROC.    0.75      7.3    646.2    1.87                   13.4
          SEQ#16 50 MPH CRUISE          0.0     0.00           285.1
          SEQ#16 HIGHWAY FUEL ECON.    0.06      0.2    376.0    1.88                   23.6
          SEQ#16 4 SPD IDLE (NEUT)     15.8     0.00            48.6
          SEQ#16 4 SPD IDLE (2500)      0.0     0.00           109.3
          SEQ#16 4 SPD IDLE (NEUT)      0.0     0.00            52.6
          SEQ#16 4 SPD IDLE (DRIV)      0.0     0.00            76.4
          SEQ#16 FED 2 MODE (30)        0.0     0.00           292.2
          SEQ#16 FED 2 MODE (NEUT)     17.4     0.01            43.0

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    13  CO:  0.02   GAIN:  70

9062   79 FORD 140 2.3TF1X92 / BE

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  332   CO:  8.22   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    0.52      3.9    550.1    1.40                   15.9
          SEQ#11 50 MPH CRUISE          7.5     0.00           190.6
          SEQ#11 HIGHWAY FUEL ECON.    0.05      0.1    338.3    1.64                   26.2
          SEQ#11 4 SPD IDLE (NEUT)      7.2     0.00            12.6
          SEQ#11 4 SPD IDLE (2500)      6.9     0.00            30.1
          SEQ#11 4 SPD IDLE (NEUT)      7.2     0.00            11.5
          SEQ#11 FED 2 MODE (30)        8.2     0.00           136.7
          SEQ#11 FED 2 MODE (NEUT)      7.5     0.00            12.9

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                FUEL
VEH.                                    ---------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2     NOxc    CH4       MPG
----   -- ---- --- -----------------   -----   -----   ------   -----   ----      ----
9062   79 FORD 140 2.3TF1X92 / BE    (CON'T)

          COMMENT : IDLE RPM 900 NEUTRAL, PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.     0.73     4.2    544.7    1.50               16.0
          SEQ#12 50 MPH CRUISE         16.1     0.01            354.8
          SEQ#12 HIGHWAY FUEL ECON.     0.06     0.3    357.2    1.60               24.8
          SEQ#12 4 SPD IDLE (NEUT)     14.1     0.00             29.1
          SEQ#12 4 SPD IDLE (2500)      7.5     0.00             57.4
          SEQ#12 4 SPD IDLE (NEUT)      6.6     0.00             28.5
          SEQ#12 FED 2 MODE (30)       28.9     0.01            241.7
          SEQ#12 FED 2 MODE (NEUT)     15.8     0.00             39.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE NEUTRAL 900 RPM, CO .1%, HC 70 PPM.

          SEQ#15 FEDERAL TEST PROC.     0.52     3.2    542.8    1.27               16.2
          SEQ#15 50 MPH CRUISE         11.5     0.00            150.8
          SEQ#15 HIGHWAY FUEL ECON.     0.05     0.3    341.7    1.56               25.9
          SEQ#15 4 SPD IDLE (NEUT)     28.3     0.00             17.8
          SEQ#15 4 SPD IDLE (2500)     15.8     0.00             33.6
          SEQ#15 4 SPD IDLE (NEUT)     20.4     0.00             19.8
          SEQ#15 FED 2 MODE (30)       16.7     0.01            133.9
          SEQ#15 FED 2 MODE (NEUT)     10.5     0.00             20.5

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   12  CO:  0.02   GAIN: 100

9066   79 FORD 171 2.8B1X92 / DA

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   13  CO:  0.02   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     1.38     6.1    482.0    2.23               17.9
          SEQ#11 50 MPH CRUISE         16.4     0.00            317.4
          SEQ#11 HIGHWAY FUEL ECON.     0.15     0.1    373.0    1.73               23.8
          SEQ#11 4 SPD IDLE (NEUT)    428.1     2.13             51.4
          SEQ#11 4 SPD IDLE (2500)     30.6     0.00            266.9
          SEQ#11 4 SPD IDLE (NEUT)     35.8     0.00             40.9
          SEQ#11 4 SPD IDLE (DRIV)    232.5     2.62             60.3
          SEQ#11 FED 2 MODE (30)       74.7     0.01            830.0
          SEQ#11 FED 2 MODE (NEUT)     30.2     0.01             44.1

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                FUEL
VEH.                                      --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- -----------------     -----   -----   -----    -----   ----     ----
9066   79 FORD 171 2.8B1X92 / DA    (CON'T)

          COMMENT : IDLE RPM 620, PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.      0.84     5.4    482.1     2.38             18.0
          SEQ#12 50 MPH CRUISE          21.3     0.01             352.8
          SEQ#12 HIGHWAY FUEL ECON.      0.16     0.1    377.2     1.90             23.5
          SEQ#12 4 SPD IDLE (NEUT)     355.0     2.13              51.4
          SEQ#12 4 SPD IDLE (2500)      33.2     0.01             267.9
          SEQ#12 4 SPD IDLE (NEUT)      41.1     0.01              41.3
          SEQ#12 4 SPD IDLE (DRIV)     238.6     3.13              56.4
          SEQ#12 FED 2 MODE (30)        65.8     0.01             728.9
          SEQ#12 FED 2 MODE (NEUT)      26.9     0.01              47.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE SPEED AND MIXTURE.

          SEQ#15 FEDERAL TEST PROC.      0.75     6.8    478.9     2.31             18.0
          SEQ#15 50 MPH CRUISE          20.0     0.00             286.1
          SEQ#15 HIGHWAY FUEL ECON.      0.15     0.1    374.6     1.82             23.7
          SEQ#15 4 SPD IDLE (NEUT)      37.5     0.01              90.6
          SEQ#15 4 SPD IDLE (2500)      10.8     0.01             220.1
          SEQ#15 4 SPD IDLE (NEUT)     119.8     0.00              75.9
          SEQ#15 4 SPD IDLE (DRIV)      30.6     0.02             146.2
          SEQ#15 FED 2 MODE (30)        42.1     0.01             779.4
          SEQ#15 FED 2 MODE (NEUT)      82.0     0.01              76.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    38  CO:  0.02   GAIN: 100

9072   79 FORD 302 5.0C2X124/LA

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:    60  CO:  0.02   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.      0.74     9.1    629.3     2.14             13.7
          SEQ#11 50 MPH CRUISE          25.6     0.00             612.6
          SEQ#11 HIGHWAY FUEL ECON.      0.21     0.4    446.9     3.35             19.8
          SEQ#11 4 SPD IDLE (NEUT)     273.9     2.56              68.9
          SEQ#11 4 SPD IDLE (2500)     190.7     0.00             149.8
          SEQ#11 4 SPD IDLE (NEUT)       7.9     0.00             142.4
          SEQ#11 4 SPD IDLE (DRIV)       9.5     0.00             335.6
          SEQ#11 FED 2 MODE (30)        82.7     0.00             401.3
          SEQ#11 FED 2 MODE (NEUT)      17.7     0.00              93.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:     7  CO:  0.00   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                             AUTOMOTIVE TESTING LABORATORIES,INC.

                                    TEXAS PILOT I/M STUDY


                                   LISTING OF TEST RESULTS
                                         HOUSTON #2

                                                            EMISSION RESULTS                  FUEL
VEH.                                               --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY           HC       CO       CO2      NOxc     CH4      MPG
----   -- ---- --- -----------------        -----    -----    ------    -----    ----     ----
9072   79 FORD 302 5.0C2X124/LA    (CON'T)

          COMMENT : IDLE NEUTRAL 850 RPM, WITH PROPANE 900 RPM.

          SEQ#12 FEDERAL TEST PROC.     0.64      6.0     576.9     2.24              15.1
          SEQ#12 50 MPH CRUISE          30.9     0.00              641.9
          SEQ#12 HIGHWAY FUEL ECON.     0.20      0.2     427.9     3.00              20.7
          SEQ#12 4 SPD IDLE (NEUT)      31.5     0.08               57.4
          SEQ#12 4 SPD IDLE (2500)     134.7     0.00              148.0
          SEQ#12 4 SPD IDLE (NEUT)       5.6     0.00              108.5
          SEQ#12 4 SPD IDLE (DRIV)      13.1     0.00              252.7
          SEQ#12 FED 2 MODE (30)        73.4     0.00              371.0
          SEQ#12 FED 2 MODE (NEUT)      29.6     0.00               69.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    7  CO:  0.00   GAIN:  50


          COMMENT : ADJUSTED TIMING, IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.     0.91      6.5     600.6     2.90              14.5
          SEQ#15 50 MPH CRUISE          30.9     0.00              661.1
          SEQ#15 HIGHWAY FUEL ECON.     0.23      0.3     444.1     3.55              19.9
          SEQ#15 4 SPD IDLE (NEUT)      91.3     0.00              124.2
          SEQ#15 4 SPD IDLE (2500)     189.7     0.00              171.1
          SEQ#15 4 SPD IDLE (NEUT)      10.5     0.00              168.8
          SEQ#15 4 SPD IDLE (DRIV)       8.5     0.00              363.9
          SEQ#15 FED 2 MODE (30)        93.3     0.00              448.9
          SEQ#15 FED 2 MODE (NEUT)      83.7     0.00              105.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   10  CO:  0.00   GAIN: 100


9074   79 FORD 140 2.3A1X92 / BA

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  230  CO:  5.20   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     1.17     30.9     413.2     1.19              19.1
          SEQ#11 50 MPH CRUISE           3.0     0.00              479.2
          SEQ#11 HIGHWAY FUEL ECON.     0.14      2.3     328.8     2.24              26.7
          SEQ#11 4 SPD IDLE (NEUT)     208.8     5.60               48.5
          SEQ#11 4 SPD IDLE (2500)      45.4     0.00              106.2
          SEQ#11 4 SPD IDLE (NEUT)     202.7     6.08               47.8
          SEQ#11 4 SPD IDLE (DRIV)     243.9     6.32               48.1
          SEQ#11 FED 2 MODE (30)        35.2     0.01              466.0
          SEQ#11 FED 2 MODE (NEUT)     233.9     6.33               46.2

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  202  CO:  6.17   GAIN:   0



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                                     EMISSION RESULTS             FUEL
VEH.                                         --------- GRAMS / MILE ----------    ECON
 NO.   YR MAKE CID    ENGINE FAMILY            HC      CO      CO2    NOxc   CH4   MPG
----   -- ---- --- -----------------         -----   -----   -----   -----  ----  ----
9074   79 FORD 140 2.3A1X92 / BA     (CON'T)

            COMMENT : IDLE NEUTRAL 1020 RPM,WITH PROPANE 1070 RPM.

            SEQ#12 FEDERAL TEST PROC.    0.44    16.0    432.4    1.21          19.3
            SEQ#12 50 MPH CRUISE         13.8    0.00           581.3
            SEQ#12 HIGHWAY FUEL ECON.    0.06     1.3    334.9    2.35          26.3
            SEQ#12 4 SPD IDLE (NEUT)    156.7    0.59            31.7
            SEQ#12 4 SPD IDLE (2500)    227.2    0.00           102.4
            SEQ#12 4 SPD IDLE (NEUT)    163.3    1.08            52.3
            SEQ#12 4 SPD IDLE (DRIV)     30.2    0.00           224.4
            SEQ#12 FED 2 MODE (30)       33.8    0.00           396.3
            SEQ#12 FED 2 MODE (NEUT)    106.2    1.56            59.3

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  162  CO:  1.10   GAIN:  40

            COMMENT : IDLE CO .5%,IDLE NEUTRAL 970 RPM.

            SEQ#13 FEDERAL TEST PROC.    0.44    16.5    456.0    1.14          18.4
            SEQ#13 50 MPH CRUISE          0.0    0.00           767.3
            SEQ#13 HIGHWAY FUEL ECON.    0.06     1.7    345.8    2.57          25.5
            SEQ#13 4 SPD IDLE (NEUT)     27.6    0.00            77.1
            SEQ#13 4 SPD IDLE (2500)     24.0    0.00           104.9
            SEQ#13 4 SPD IDLE (NEUT)      0.0    0.00            71.6
            SEQ#13 4 SPD IDLE (DRIV)      0.0    0.01            75.2
            SEQ#13 FED 2 MODE (30)        9.5    0.00           470.1
            SEQ#13 FED 2 MODE (NEUT)      0.0    0.02            54.6

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    0  CO:  0.00   GAIN: 100

            COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

            SEQ#15 FEDERAL TEST PROC.    0.45    13.1    445.4    1.21          19.0
            SEQ#15 50 MPH CRUISE          0.0    0.00           630.8
            SEQ#15 HIGHWAY FUEL ECON.    0.06     1.4    338.7    2.41          26.0
            SEQ#15 4 SPD IDLE (NEUT)      9.5    0.00            74.0
            SEQ#15 4 SPD IDLE (2500)     83.3    0.01           101.1
            SEQ#15 4 SPD IDLE (NEUT)      0.0    0.02            68.0
            SEQ#15 4 SPD IDLE (DRIV)     13.5    0.01           221.4
            SEQ#15 FED 2 MODE (30)       15.8    0.00           505.5
            SEQ#15 FED 2 MODE (NEUT)      3.0    0.00            83.2

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    0  CO:  0.02   GAIN: 140




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                     FUEL
VEH.                                          ---------- GRAMS / MILE ----------         ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC     CO     CO2     NOxc    CH4     MPG
----  -- ---- --- -----------------     -----  -----  ------  -----   ----    ----
9091  79 MERC 351 5.8MD2X124/TND

         PRELIMINARY LANE TEST:
         CAT: P     FUEL: P
         HC:    12  CO:  0.02   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.    0.68   14.3   759.9    0.94              11.3
         SEQ#11 50 MPH CRUISE        10.2    0.01           301.3
         SEQ#11 HIGHWAY FUEL ECON.    0.13    0.7   496.3    1.09              17.8
         SEQ#11 4 SPD IDLE (NEUT)   165.3    3.83            58.5
         SEQ#11 4 SPD IDLE (2500)    34.5    0.01            89.8
         SEQ#11 4 SPD IDLE (NEUT)     5.6    0.00            57.3
         SEQ#11 4 SPD IDLE (DRIV)   190.0    4.13            72.4
         SEQ#11 FED 2 MODE (30)      30.2    0.01           280.0
         SEQ#11 FED 2 MODE (NEUT)     7.9    0.01            49.7

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE 600 RPM,IDLE NEUTRAL 780 RPM,
                   PROPANE GAIN 50 RPM.USED UNIVERSAL METHOD.

         SEQ#12 FEDERAL TEST PROC.    0.72   11.1   721.3    0.99              12.0
         SEQ#12 50 MPH CRUISE         6.2    0.01           245.7
         SEQ#12 HIGHWAY FUEL ECON.    0.12    0.2   488.9    1.10              18.1
         SEQ#12 4 SPD IDLE (NEUT)    51.3    0.00            72.4
         SEQ#12 4 SPD IDLE (2500)    45.0    0.00            89.1
         SEQ#12 4 SPD IDLE (NEUT)     9.2    0.00            68.7
         SEQ#12 4 SPD IDLE (DRIV)     8.2    0.00           162.4
         SEQ#12 FED 2 MODE (30)      21.0    0.00           275.0
         SEQ#12 FED 2 MODE (NEUT)    29.6    0.00            60.9

         NO FOLLOW UP LANE TEST DONE

         COMMENT : IDLE DRIVE 600 RPM,IDLE CO .25%.

         SEQ#15 FEDERAL TEST PROC.    0.80   14.0   733.4    0.98              11.7
         SEQ#15 50 MPH CRUISE         6.9    0.01           256.8
         SEQ#15 HIGHWAY FUEL ECON.    0.12    0.3   503.8    1.07              17.6
         SEQ#15 4 SPD IDLE (NEUT)    56.9    0.00            74.7
         SEQ#15 4 SPD IDLE (2500)    54.9    0.00            92.2
         SEQ#15 4 SPD IDLE (NEUT)     6.9    0.00            66.3
         SEQ#15 4 SPD IDLE (DRIV)     8.5    0.00           149.6
         SEQ#15 FED 2 MODE (30)      23.0    0.01           277.0
         SEQ#15 FED 2 MODE (NEUT)    39.8    0.00            58.7

         FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
         HC:     9  CO:  0.02   GAIN: 120
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                              EMISSION RESULTS             FUEL
VEH.                                  ---------- GRAMS / MILE -----------  ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC     CO     CO2    NOxc   CH4    MPG
----  -- ---- --- ------------------  -----  -----  ------  -----  ----   ----
9105  79 PLYM 086 4G1M-F / E-79-1

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  189  CO:  4.24  GAIN:   0

           SEQ#11 FEDERAL TEST PROC.   2.07   17.6  252.9   1.84          30.9
           SEQ#11 50 MPH CRUISE        98.2   0.29        1147.3
           SEQ#11 HIGHWAY FUEL ECON.   0.71    5.2  206.0   2.78          41.0
           SEQ#11 4 SPD IDLE (NEUT)   197.7   2.30          70.9
           SEQ#11 4 SPD IDLE (2500)   262.8   4.95          77.9
           SEQ#11 4 SPD IDLE (NEUT)   222.8   2.84          69.6
           SEQ#11 FED 2 MODE (30)     112.5   0.26         858.3
           SEQ#11 FED 2 MODE (NEUT)   232.9   3.39          73.2

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE SPEED NEUTRAL 700 RPMS, PROPANE
                     GAIN 60 RPMS.

           SEQ#12 FEDERAL TEST PROC.   1.91   12.2  246.8   1.79          32.6
           SEQ#12 50 MPH CRUISE        80.0   0.17        1092.1
           SEQ#12 HIGHWAY FUEL ECON.   0.58    2.9  201.7   2.39          42.6
           SEQ#12 4 SPD IDLE (NEUT)   113.1   0.06          70.2
           SEQ#12 4 SPD IDLE (2500)   278.1   5.24          76.7
           SEQ#12 4 SPD IDLE (NEUT)   153.7   0.39          60.0
           SEQ#12 FED 2 MODE (30)      97.2   0.20         916.8
           SEQ#12 FED 2 MODE (NEUT)   141.7   0.14          64.6

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE NEUTRAL 700 RPMS, CO .3%, HC 120
                     PPM.

           SEQ#13 FEDERAL TEST PROC.   1.81   11.9  254.2   1.70          31.9
           SEQ#13 50 MPH CRUISE       122.1   0.26        1122.2
           SEQ#13 HIGHWAY FUEL ECON.   0.61    5.0  201.0   2.41          42.1
           SEQ#13 4 SPD IDLE (NEUT)   133.7   0.08          78.6
           SEQ#13 4 SPD IDLE (2500)   326.4   6.13          68.9
           SEQ#13 4 SPD IDLE (NEUT)   165.3   0.12          70.8
           SEQ#13 FED 2 MODE (30)     134.1   0.85        1042.1
           SEQ#13 FED 2 MODE (NEUT)   154.3   0.10          67.9

           NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                 EMISSION RESULTS                   FUEL
VEH.                                   --------- GRAMS / MILE ----------           ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2     NOxc    CH4       MPG
----   -- ---- ---  ---------------    -----   -----   ------   -----   ----      ----
9105   79 PLYM 086 4G1M-F / E-79-1    (CON'T)

          COMMENT : ADJUSTED IDLE SPEED AND MIXTURE.

          SEQ#15 FEDERAL TEST PROC.    1.76    11.5    261.8    1.60              31.1
          SEQ#15 50 MPH CRUISE         76.4    0.26            849.2
          SEQ#15 HIGHWAY FUEL ECON.    0.62     4.8    190.5    2.08              44.4
          SEQ#15 4 SPD IDLE (NEUT)    128.7    0.05             62.5
          SEQ#15 4 SPD IDLE (2500)    251.9    4.40             75.7
          SEQ#15 4 SPD IDLE (NEUT)    147.0    0.05             68.6
          SEQ#15 FED 2 MODE (30)      107.8    0.30            712.7
          SEQ#15 FED 2 MODE (NEUT)    165.0    0.05             75.5

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  245   CO:  0.09   GAIN: 160

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, POINTS,
                    CONDENSER, FUEL FILTER, OIL FILTER, CRANKCASE AND
                    AIR FILTER.  RESET TIMING, DWELL AND IDLE SPEED.

          SEQ#16 FEDERAL TEST PROC.    1.73     9.9    272.3    1.91              30.3
          SEQ#16 50 MPH CRUISE         63.5    0.17           1227.4
          SEQ#16 HIGHWAY FUEL ECON.    0.60     3.6    219.6    2.96              39.1
          SEQ#16 4 SPD IDLE (NEUT)    113.1    0.05             57.1
          SEQ#16 4 SPD IDLE (2500)    188.4    1.98             83.1
          SEQ#16 4 SPD IDLE (NEUT)    137.4    0.04             69.4
          SEQ#16 FED 2 MODE (30)       80.7    0.11            966.9
          SEQ#16 FED 2 MODE (NEUT)    132.1    0.04             88.4

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  236   CO:  0.10   GAIN: 100

9108   79 PLYM 225 FD2252CA/9E3/2

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:    12  CO:  4.22   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    1.35    18.5    475.2    2.02              17.5
          SEQ#11 50 MPH CRUISE         10.5    0.01            705.6
          SEQ#11 HIGHWAY FUEL ECON.    0.21     1.5    349.2    2.17              25.2
          SEQ#11 4 SPD IDLE (NEUT)    117.5    1.60             57.6
          SEQ#11 4 SPD IDLE (2500)     12.8    0.01            294.2
          SEQ#11 4 SPD IDLE (NEUT)    123.4    1.85             54.1
          SEQ#11 4 SPD IDLE (DRIV)    118.8    0.08             54.9
          SEQ#11 FED 2 MODE (30)       24.0    0.02           3224.5
          SEQ#11 FED 2 MODE (NEUT)    133.4    1.90             83.1

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                  FUEL
VEH.                                         --------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc    CH4       MPG
----   -- ---- --- ------------------     -----   -----   ------   -----   ----      ----
9108   79 PLYM 225 FD2252CA/9E3/2      (CON'T)

            COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 60
                      RPM.  USED UNIVERSAL METHOD.

            SEQ#12 FEDERAL TEST PROC.      0.75    11.1    484.4    2.09               17.6
            SEQ#12 50 MPH CRUISE           5.3     0.01           786.5
            SEQ#12 HIGHWAY FUEL ECON.      0.09     1.4    356.3    2.15               24.7
            SEQ#12 4 SPD IDLE (NEUT)       7.2     0.01            62.7
            SEQ#12 4 SPD IDLE (2500)       7.9     0.01           225.5
            SEQ#12 4 SPD IDLE (NEUT)       4.6     0.01            65.4
            SEQ#12 4 SPD IDLE (DRIV)       8.2     0.00           177.3
            SEQ#12 FED 2 MODE (30)        21.0     0.02          3037.2
            SEQ#12 FED 2 MODE (NEUT)       7.5     0.00            69.1

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, CO .4%, HC 80 PPM.
                       USED UNIVERSAL METHOD.

            SEQ#13 FEDERAL TEST PROC.      0.82     9.3    493.2    2.04               17.4
            SEQ#13 50 MPH CRUISE           6.6     0.01           615.7
            SEQ#13 HIGHWAY FUEL ECON.      0.07     0.6    360.1    2.09               24.6
            SEQ#13 4 SPD IDLE (NEUT)      13.8     0.01            53.6
            SEQ#13 4 SPD IDLE (2500)      13.5     0.01           186.5
            SEQ#13 4 SPD IDLE (NEUT)       5.6     0.01            60.9
            SEQ#13 4 SPD IDLE (DRIV)      35.2     0.01           220.1
            SEQ#13 FED 2 MODE (30)        17.1     0.02          2672.3
            SEQ#13 FED 2 MODE (NEUT)      10.8     0.01            75.1

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 890
                      RPM, CO .1%, HC 75 PPM.

            SEQ#15 FEDERAL TEST PROC.      0.81     8.5    539.4    1.84               16.0
            SEQ#15 50 MPH CRUISE           2.0     0.01           695.5
            SEQ#15 HIGHWAY FUEL ECON.      0.07     1.0    354.4    2.14               24.9
            SEQ#15 4 SPD IDLE (NEUT)      27.3     0.01            40.8
            SEQ#15 4 SPD IDLE (2500)      12.1     0.01           202.9
            SEQ#15 4 SPD IDLE (NEUT)      19.4     0.01            37.7
            SEQ#15 4 SPD IDLE (DRIV)       6.2     0.01            72.2
            SEQ#15 FED 2 MODE (30)        18.4     0.01          2632.9
            SEQ#15 FED 2 MODE (NEUT)      28.9     0.01            76.2

            NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                 FUEL
VEH.                                          --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY            HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- ---  ------------------       -----   -----   -----   -----   ----     ----
9108   79 PLYM 225 FD2252CA/9E3/2      (CON'T)

            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE,
                      OIL AND OIL FILTER, FUEL FILTER, CHECK VALVE IN
                      ASPIRATOR SYSTEM, SET TO SPEC.

            SEQ#16 FEDERAL TEST PROC.        0.93     8.4    500.4    1.89              17.2
            SEQ#16 50 MPH CRUISE             8.9     0.01           648.0
            SEQ#16 HIGHWAY FUEL ECON.        0.07     1.0    357.8    1.98              24.7
            SEQ#16 4 SPD IDLE (NEUT)        24.6     0.01            35.1
            SEQ#16 4 SPD IDLE (2500)        11.2     0.01           232.5
            SEQ#16 4 SPD IDLE (NEUT)        21.7     0.00            36.8
            SEQ#16 4 SPD IDLE (DRIV)         9.5     0.01            53.3
            SEQ#16 FED 2 MODE (30)          14.8     0.01          2459.8
            SEQ#16 FED 2 MODE (NEUT)        29.9     0.01            65.2

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    13  CO:  0.02    GAIN: 140

9126   79 TOYO 134 20R(V) / EV-R

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:    21  CO:  0.73    GAIN:   0

            SEQ#11 FEDERAL TEST PROC.        0.46    12.9    462.4    3.98              18.3
            SEQ#11 50 MPH CRUISE            10.8     0.41          1352.7
            SEQ#11 HIGHWAY FUEL ECON.        0.15     6.3    287.5    4.52              29.8
            SEQ#11 4 SPD IDLE (NEUT)        26.9     0.69            18.5
            SEQ#11 4 SPD IDLE (2500)         4.3     0.22            60.8
            SEQ#11 4 SPD IDLE (NEUT)        17.7     0.64            22.8
            SEQ#11 FED 2 MODE (30)           3.6     0.38           855.2
            SEQ#11 FED 2 MODE (NEUT)        10.5     0.64            29.4

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE NEUTRAL 850 RPM,PROPANE GAIN 50
                      RPM.USED UNIVERSAL METHOD.

            SEQ#12 FEDERAL TEST PROC.        0.27     7.8    487.7    2.49              17.7
            SEQ#12 50 MPH CRUISE             0.0     0.17           610.6
            SEQ#12 HIGHWAY FUEL ECON.        0.03     2.9    318.3    2.94              27.5
            SEQ#12 4 SPD IDLE (NEUT)        20.7     0.35            24.3
            SEQ#12 4 SPD IDLE (2500)         0.3     0.19            68.5
            SEQ#12 4 SPD IDLE (NEUT)        14.4     0.38            27.5
            SEQ#12 FED 2 MODE (30)           3.0     0.24           591.4
            SEQ#12 FED 2 MODE (NEUT)        13.8     0.37            30.6

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    29  CO:  0.25    GAIN:  30
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                          EMISSION RESULTS                   FUEL
VEH.                                               --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC       CO      CO2      NOxc    CH4           MPG
----   -- ---- --- ------------------      -----    -----   -----    -----   ----          ----
9126   79 TOYO 134 20R(V) / EV-R    (CON'T)

          COMMENT : ADJUSTED IDLE NEUTRAL 800 RPM,CO .15%,HC 35 PPM.

          SEQ#15 FEDERAL TEST PROC.       0.55     8.0     497.1     2.65                   17.4
          SEQ#15 50 MPH CRUISE             0.7     0.19             799.1
          SEQ#15 HIGHWAY FUEL ECON.       0.07     2.7     327.9     2.97                   26.7
          SEQ#15 4 SPD IDLE (NEUT)        32.2     0.11              28.4
          SEQ#15 4 SPD IDLE (2500)         1.0     0.17              70.9
          SEQ#15 4 SPD IDLE (NEUT)        16.7     0.13              36.7
          SEQ#15 FED 2 MODE (30)           1.0     0.20             523.7
          SEQ#15 FED 2 MODE (NEUT)        14.4     0.15              43.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    59  CO:  0.07   GAIN:  40

9131  79 DATS 085 A140F/EVPCARB2

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:    41  CO:  0.84   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.       1.58    10.6     335.6     2.95                   24.8
          SEQ#11 50 MPH CRUISE            96.9     0.11            1530.5
          SEQ#11 HIGHWAY FUEL ECON.       1.06     2.5     249.7     4.52                   34.6
          SEQ#11 4 SPD IDLE (NEUT)        60.2     0.43              18.7
          SEQ#11 4 SPD IDLE (2500)        26.0     0.24              96.2
          SEQ#11 4 SPD IDLE (NEUT)       101.9     0.68              28.4
          SEQ#11 FED 2 MODE (30)          87.3     0.09            1014.5
          SEQ#11 FED 2 MODE (NEUT)        72.4     0.62              36.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE SPEED 700 RPM,PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.       2.30     7.3     319.7     2.89                   26.2
          SEQ#12 50 MPH CRUISE            85.7     0.12            1668.3
          SEQ#12 HIGHWAY FUEL ECON.       1.11     2.2     251.7     4.55                   34.3
          SEQ#12 4 SPD IDLE (NEUT)       151.4     0.10              14.2
          SEQ#12 4 SPD IDLE (2500)        28.3     0.21             120.3
          SEQ#12 4 SPD IDLE (NEUT)       159.0     0.10              20.1
          SEQ#12 FED 2 MODE (30)          81.7     0.09             964.4
          SEQ#12 FED 2 MODE (NEUT)       126.7     0.10              32.7

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                  FUEL
VEH.                                      --------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC       CO      CO2     NOxc    CH4       MPG
----  -- ---- ---  -----------------     -----    -----   ------   -----   ----      ----
9131  79 DATS 085  A140F/EVPCARB2       (CON'T)

         COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

         SEQ#15 FEDERAL TEST PROC.      1.86      8.2    321.5    2.86               26.1
         SEQ#15 50 MPH CRUISE           80.7     0.11           1643.2
         SEQ#15 HIGHWAY FUEL ECON.      1.03      2.5    248.5    4.61               34.7
         SEQ#15 4 SPD IDLE (NEUT)      105.5     0.21             25.4
         SEQ#15 4 SPD IDLE (2500)       25.0     0.29            121.1
         SEQ#15 4 SPD IDLE (NEUT)       94.6     0.21             29.9
         SEQ#15 FED 2 MODE (30)         84.7     0.10           1089.6
         SEQ#15 FED 2 MODE (NEUT)      101.9     0.18             44.4

         NO FOLLOW UP LANE TEST DONE

         COMMENT : MAJOR TUNE-UP.REPLACED AIR,FUEL,OIL AND CRANKCASE
                   BREATHER FILTERS,SPARK PLUGS,PCV VALVE,CRANKCASE
                   OIL.ADJUSTED TIMING,IDLE SPEED AND MIXTURE.

         SEQ#16 FEDERAL TEST PROC.      1.46      8.3    361.1    1.47               23.4
         SEQ#16 50 MPH CRUISE            8.9     0.15            413.5
         SEQ#16 HIGHWAY FUEL ECON.      0.40      3.1    276.4    1.67               31.4
         SEQ#16 4 SPD IDLE (NEUT)       94.9     0.27             23.9
         SEQ#16 4 SPD IDLE (2500)       14.1     0.16             84.7
         SEQ#16 4 SPD IDLE (NEUT)       82.0     0.18             31.1
         SEQ#16 FED 2 MODE (30)         18.4     0.14            332.6
         SEQ#16 FED 2 MODE (NEUT)       75.7     0.15             42.0

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  113  CO:  0.31   GAIN:  25

9140  79 VOLK 089 37F / 37

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  270  CO:  4.60   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.      2.60     49.0    349.3    1.42               20.4
         SEQ#11 50 MPH CRUISE          198.7     2.84           1002.0
         SEQ#11 HIGHWAY FUEL ECON.      1.60     33.3    212.9    1.29               32.8
         SEQ#11 4 SPD IDLE (NEUT)      217.8     9.70             38.1
         SEQ#11 4 SPD IDLE (2500)      318.7     8.72             71.9
         SEQ#11 4 SPD IDLE (NEUT)      117.1     5.83             66.4
         SEQ#11 FED 2 MODE (30)        258.9     4.85            350.8
         SEQ#11 FED 2 MODE (NEUT)      113.5     5.75             67.1

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  119  CO:  5.84   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
9140	79	VOLK	089	37F / 37 (CON'T)						

COMMENT : PROPANE GAIN 50 RPM.

SEQ#12 FEDERAL TEST PROC.	1.82	19.5	373.8	1.69		21.6
SEQ#12 50 MPH CRUISE	138.7	0.63		1119.7		
SEQ#12 HIGHWAY FUEL ECON.	1.13	8.9	237.6	2.23		34.8
SEQ#12 4 SPD IDLE (NEUT)	88.0	1.39		71.1		
SEQ#12 4 SPD IDLE (2500)	55.3	1.15		167.8		
SEQ#12 4 SPD IDLE (NEUT)	63.8	1.15		73.6		
SEQ#12 FED 2 MODE (30)	169.7	1.32		986.9		
SEQ#12 FED 2 MODE (NEUT)	72.1	1.37		76.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 63 CO: 1.16 GAIN: 80

COMMENT : IDLE CO .5%, IDLE NEUTRAL 925 RPM.

SEQ#13 FEDERAL TEST PROC.	1.77	15.4	376.2	1.99		21.9
SEQ#13 50 MPH CRUISE	162.7	1.55		1515.5		
SEQ#13 HIGHWAY FUEL ECON.	1.39	19.9	225.0	1.89		34.1
SEQ#13 4 SPD IDLE (NEUT)	58.9	0.25		77.3		
SEQ#13 4 SPD IDLE (2500)	87.0	4.17		103.6		
SEQ#13 4 SPD IDLE (NEUT)	47.0	0.28		78.1		
SEQ#13 FED 2 MODE (30)	166.0	1.38		1009.5		
SEQ#13 FED 2 MODE (NEUT)	44.4	0.31		79.7		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 46 CO: 0.27 GAIN: 230

COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

SEQ#15 FEDERAL TEST PROC.	1.50	10.9	387.4	2.04		21.7
SEQ#15 50 MPH CRUISE	143.0	1.51		648.0		
SEQ#15 HIGHWAY FUEL ECON.	1.30	16.1	229.1	1.87		34.3
SEQ#15 4 SPD IDLE (NEUT)	42.4	0.75		93.0		
SEQ#15 4 SPD IDLE (2500)	98.9	4.92		100.6		
SEQ#15 4 SPD IDLE (NEUT)	30.2	0.22		89.0		
SEQ#15 FED 2 MODE (30)	204.7	2.68		751.1		
SEQ#15 FED 2 MODE (NEUT)	40.1	0.22		87.6		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 30 CO: 0.22 GAIN: 80

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                               TEXAS PILOT I/M STUDY


                             LISTING OF TEST RESULTS
                                   HOUSTON #2

                                                           EMISSION RESULTS                    FUEL
VEH.                                            --------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY              HC      CO      CO2     NOxc     CH4      MPG
----   -- ---- --- ----------------           -----   -----   ------   -----    ----     ----
9143   79 MAZD 070 9REP / 9SRE

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:   18  CO:  0.05   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.     0.71     6.8    581.4    1.64               14.9
            SEQ#11 50 MPH CRUISE           0.0    0.02            555.0
            SEQ#11 HIGHWAY FUEL ECON.     0.26     1.0    351.9    1.93               25.1
            SEQ#11 4 SPD IDLE (NEUT)       0.0    0.03             28.2
            SEQ#11 4 SPD IDLE (2500)       0.0    0.02             64.0
            SEQ#11 4 SPD IDLE (NEUT)       0.0    0.05             28.0
            SEQ#11 FED 2 MODE (30)         0.0    0.02            362.9
            SEQ#11 FED 2 MODE (NEUT)       0.0    0.19             33.5

            NO FOLLOW UP LANE TEST DONE

            COMMENT : IDLE NEUTRAL 750 RPM, PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.     5.15    14.6    511.0    1.72               16.1
            SEQ#12 50 MPH CRUISE           2.6    0.16            340.7
            SEQ#12 HIGHWAY FUEL ECON.     0.72     1.6    354.8    1.76               24.7
            SEQ#12 4 SPD IDLE (NEUT)     616.7    0.39             14.6
            SEQ#12 4 SPD IDLE (2500)     439.3    0.30             40.1
            SEQ#12 4 SPD IDLE (NEUT)     470.5    0.41             17.0
            SEQ#12 FED 2 MODE (30)        20.0    0.40            240.1
            SEQ#12 FED 2 MODE (NEUT)     537.7    0.35             19.7

            NO FOLLOW UP LANE TEST DONE

            COMMENT : IDLE NEUTRAL 700 RPM, HC 0 PPM, CO .005%.

            SEQ#15 FEDERAL TEST PROC.     2.34    17.8    543.6    1.45               15.3
            SEQ#15 50 MPH CRUISE           6.2    0.47            358.9
            SEQ#15 HIGHWAY FUEL ECON.     2.09    16.0    336.9    1.39               24.1
            SEQ#15 4 SPD IDLE (NEUT)       0.3    0.07             28.0
            SEQ#15 4 SPD IDLE (2500)       3.0    0.16             71.5
            SEQ#15 4 SPD IDLE (NEUT)       0.0    0.17             29.2
            SEQ#15 FED 2 MODE (30)         0.0    0.10            265.9
            SEQ#15 FED 2 MODE (NEUT)       0.0    0.38             33.7

            NO FOLLOW UP LANE TEST DONE




  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                                  LISTING OF TEST RESULTS
                                        HOUSTON #2

                                                        EMISSION RESULTS                     FUEL
VEH.                                         ---------- GRAMS / MILE -----------             ECON
 NO.  YR MAKE CID     ENGINE FAMILY           HC      CO      CO2      NOxc    CH4          MPG
----  -- ---- --- ------------------       -----   -----   ------    -----   ----          ----
9143  79 MAZD 070 9REP / 9SRE    (CON'T)

           COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR FILTER
                     AND OIL FILTER.

           SEQ#16 FEDERAL TEST PROC.        0.84     5.7    560.7     1.64                   15.5
           SEQ#16 50 MPH CRUISE              0.0    0.02             518.6
           SEQ#16 HIGHWAY FUEL ECON.        0.19     0.7    346.6     1.95                   25.5
           SEQ#16 4 SPD IDLE (NEUT)          0.7    0.01              27.8
           SEQ#16 4 SPD IDLE (2500)          0.7    0.02              57.8
           SEQ#16 4 SPD IDLE (NEUT)          0.0    0.00              28.0
           SEQ#16 FED 2 MODE (30)            0.0    0.01             325.5
           SEQ#16 FED 2 MODE (NEUT)          0.0    0.01              29.2

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   36  CO:  0.07   GAIN:   0

9144  79 MAZD 086 9UCP / 9SCA

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:   41  CO:  0.05   GAIN:   5

           SEQ#11 FEDERAL TEST PROC.        0.86    11.6    310.9     1.82                   26.7
           SEQ#11 50 MPH CRUISE             53.9    0.06             841.7
           SEQ#11 HIGHWAY FUEL ECON.        0.28     1.9    256.7     2.16                   34.1
           SEQ#11 4 SPD IDLE (NEUT)        175.0    0.13               9.4
           SEQ#11 4 SPD IDLE (2500)        218.1    0.36              41.1
           SEQ#11 4 SPD IDLE (NEUT)        205.7    0.26               9.5
           SEQ#11 4 SPD IDLE (DRIV)         44.1    0.02              36.9
           SEQ#11 FED 2 MODE (30)           73.8    0.05             926.0
           SEQ#11 FED 2 MODE (NEUT)        195.4    0.22               6.4

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE DRIVE 600 RPM, IDLE NEUTRAL 760 RPM, PROPANE
                     ENRICHED IDLE 810 RPM.

           SEQ#12 FEDERAL TEST PROC.        0.54     6.6    303.4     2.42                   28.1
           SEQ#12 50 MPH CRUISE             45.4    0.02            1412.8
           SEQ#12 HIGHWAY FUEL ECON.        0.17     0.5    253.2     3.06                   34.9
           SEQ#12 4 SPD IDLE (NEUT)         52.3    0.00              55.8
           SEQ#12 4 SPD IDLE (2500)         41.1    0.01             219.9
           SEQ#12 4 SPD IDLE (NEUT)         29.9    0.00              65.6
           SEQ#12 4 SPD IDLE (DRIV)         34.8    0.00             183.2
           SEQ#12 FED 2 MODE (30)           61.9    0.03            1204.9
           SEQ#12 FED 2 MODE (NEUT)         39.4    0.00              86.5

           NO FOLLOW UP LANE TEST DONE



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                 FUEL
VEH.                                       ---------- GRAMS / MILE ----------        ECON
 NO.  YR MAKE CID     ENGINE FAMILY         HC      CO      CO2    NOxc   CH4      MPG
----  -- ---- --- ------------------     -----   -----   ------   -----  ----     ----
9144  79 MAZD 086 9UCP / 9SCA    (CON'T)

          COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO SPEC.

          SEQ#15 FEDERAL TEST PROC.        0.57     8.6    300.2    2.43            28.1
          SEQ#15 50 MPH CRUISE             48.7    0.03           1237.4
          SEQ#15 HIGHWAY FUEL ECON.        0.18     0.5    259.7    3.14            34.0
          SEQ#15 4 SPD IDLE (NEUT)         32.5    0.00             43.6
          SEQ#15 4 SPD IDLE (2500)         35.5    0.01            190.4
          SEQ#15 4 SPD IDLE (NEUT)         26.9    0.00             46.8
          SEQ#15 4 SPD IDLE (DRIV)         28.3    0.00            121.6
          SEQ#15 FED 2 MODE (30)           63.2    0.04           1059.6
          SEQ#15 FED 2 MODE (NEUT)         35.5    0.00             60.7

          NO FOLLOW UP LANE TEST DONE


          COMMENT : MAJOR TUNE-UP.  REPLACED AIR, FUEL AND OIL FILTER,
                     SPARK PLUGS, ENGINE OIL, PCV VALVE.  ADJUSTED
                    TIMING AND IDLE SPEED AND MIXTURE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.        0.50     7.9    286.8    1.91            29.5
          SEQ#16 50 MPH CRUISE             35.8    0.03            905.8
          SEQ#16 HIGHWAY FUEL ECON.        0.16     0.5    239.3    2.48            36.9
          SEQ#16 4 SPD IDLE (NEUT)         22.7    0.00             50.8
          SEQ#16 4 SPD IDLE (2500)         28.9    0.01            135.2
          SEQ#16 4 SPD IDLE (NEUT)         13.5    0.00             54.9
          SEQ#16 4 SPD IDLE (DRIV)         19.4    0.00            129.6
          SEQ#16 FED 2 MODE (30)           49.3    0.03            841.1
          SEQ#16 FED 2 MODE (NEUT)         28.9    0.00             65.2

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    23  CO:  0.02   GAIN:   10

9146  79 FIAT 122 132-A / EV-2A

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:    55  CO:  1.50   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.        0.79    20.9    393.6    2.99            20.7
          SEQ#11 50 MPH CRUISE             40.4    0.05           1756.0
          SEQ#11 HIGHWAY FUEL ECON.        0.17     4.1    266.6    3.29            32.4
          SEQ#11 4 SPD IDLE (NEUT)         63.5    3.10             86.7
          SEQ#11 4 SPD IDLE (2500)         34.8    1.46            127.8
          SEQ#11 4 SPD IDLE (NEUT)         62.2    2.89             52.6
          SEQ#11 FED 2 MODE (30)           28.9    0.05           1385.2
          SEQ#11 FED 2 MODE (NEUT)         62.2    3.35             49.7

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    63  CO:  2.89   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                          EMISSION RESULTS                    FUEL
VEH.                                           ---------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY              HC       CO      CO2     NOxc     CH4        MPG
----   -- ---- ---  -----------------           ----    -----   -----    ----     ----       ----
9146   79 FIAT 122 132-A / EV-2A    (CON'T)

             COMMENT : IDLE NEUTRAL WITH PROPANE 850 RPM,  WITHOUT
                       PROPANE 900 RPM.

             SEQ#12 FEDERAL TEST PROC.          0.64     6.8    396.3    3.16                 21.7
             SEQ#12 50 MPH CRUISE              35.8     0.04           1871.2
             SEQ#12 HIGHWAY FUEL ECON.          0.16     2.4    274.1    3.21                 31.9
             SEQ#12 4 SPD IDLE (NEUT)           8.2     0.00             65.0
             SEQ#12 4 SPD IDLE (2500)           3.3     0.01            178.3
             SEQ#12 4 SPD IDLE (NEUT)           9.5     0.00             57.9
             SEQ#12 FED 2 MODE (30)            24.0     0.07           1452.9
             SEQ#12 FED 2 MODE (NEUT)           4.3     0.01             99.0

             FOLLOW UP LANE TEST:
             CAT: P     FUEL: P
             HC:    10  CO:  0.00   GAIN: 130

             COMMENT : ADJUSTED IDLE MIXTURE & TIMING TO SPEC.

             SEQ#15 FEDERAL TEST PROC.          0.70     9.1    405.2    2.76                 21.0
             SEQ#15 50 MPH CRUISE              15.8     0.05           1678.3
             SEQ#15 HIGHWAY FUEL ECON.          0.25     7.7    275.1    2.77                 30.8
             SEQ#15 4 SPD IDLE (NEUT)           2.6     0.01             53.1
             SEQ#15 4 SPD IDLE (2500)           0.0     0.02            157.8
             SEQ#15 4 SPD IDLE (NEUT)           0.0     0.01             56.6
             SEQ#15 FED 2 MODE (30)            16.4     0.04           1442.8
             SEQ#15 FED 2 MODE (NEUT)           3.6     0.03             90.3

             FOLLOW UP LANE TEST:
             CAT: P     FUEL: P
             HC:     0  CO:  0.01   GAIN:  30

8151   78 AMC  232 I-1 / E-1

             PRELIMINARY LANE TEST:
             CAT: P     FUEL: P
             HC:    40  CO:  0.01   GAIN:   0

             SEQ#11 FEDERAL TEST PROC.          0.51     6.0    517.5    1.68                 16.8
             SEQ#11 50 MPH CRUISE              28.9     0.00            252.7
             SEQ#11 HIGHWAY FUEL ECON.          0.13     0.5    386.6    1.66                 22.9
             SEQ#11 4 SPD IDLE (NEUT)           9.5     0.01             42.2
             SEQ#11 4 SPD IDLE (2500)          27.9     0.00             93.1
             SEQ#11 4 SPD IDLE (NEUT)           3.6     0.00             43.8
             SEQ#11 4 SPD IDLE (DRIV)          14.1     0.00             55.5
             SEQ#11 FED 2 MODE (30)            27.6     0.00            246.7
             SEQ#11 FED 2 MODE (NEUT)           5.3     0.00             41.8

             FOLLOW UP LANE TEST:
             CAT: P     FUEL: P
             HC:     3  CO:  0.00   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8151	78	AMC	232	I-1 / E-1 (CON'T)						

COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT. 50 RPM PROPANE GAIN ACHEIVED AT STEP 6 OF PROPANE CARBURETOR ADJUSTMENT PROCEDURE A-1. IDLE RPM 660 NEUTRAL, WITH PROPANE 710 NEUTRAL.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	0.64	5.1	502.4	2.09		17.3
SEQ#12 50 MPH CRUISE	27.9	0.00		267.9		
SEQ#12 HIGHWAY FUEL ECON.	0.15	0.3	377.1	1.51		23.5
SEQ#12 4 SPD IDLE (NEUT)	12.5	0.00		43.0		
SEQ#12 4 SPD IDLE (2500)	34.2	0.00		101.8		
SEQ#12 4 SPD IDLE (NEUT)	6.6	0.00		47.0		
SEQ#12 4 SPD IDLE (DRIV)	16.4	0.00		83.1		
SEQ#12 FED 2 MODE (30)	42.7	0.00		307.3		
SEQ#12 FED 2 MODE (NEUT)	15.1	0.00		48.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 7 CO: 0.00 GAIN: 70

COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	0.56	5.6	488.1	1.58		17.8
SEQ#15 50 MPH CRUISE	20.4	0.00		260.8		
SEQ#15 HIGHWAY FUEL ECON.	0.14	0.4	384.4	1.37		23.0
SEQ#15 4 SPD IDLE (NEUT)	7.5	0.00		49.6		
SEQ#15 4 SPD IDLE (2500)	24.6	0.00		102.1		
SEQ#15 4 SPD IDLE (NEUT)	1.3	0.00		51.0		
SEQ#15 4 SPD IDLE (DRIV)	10.8	0.00		98.3		
SEQ#15 FED 2 MODE (30)	42.1	0.00		316.4		
SEQ#15 FED 2 MODE (NEUT)	13.1	0.00		51.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 0 CO: 0.00 GAIN: 30

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
8152	78	BUIC	231	840B2BCB 8BCV

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 316 CO: 3.10 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	1.46	25.9	453.9	1.88		17.8
SEQ#11 50 MPH CRUISE	28.3	0.02		936.8		
SEQ#11 HIGHWAY FUEL ECON.	0.13	1.5	360.0	2.66		24.5
SEQ#11 4 SPD IDLE (NEUT)	209.4	1.86		60.5		
SEQ#11 4 SPD IDLE (2500)	30.2	0.07		195.1		
SEQ#11 4 SPD IDLE (NEUT)	221.5	2.12		44.4		
SEQ#11 4 SPD IDLE (DRIV)	242.6	2.37		222.4		
SEQ#11 FED 2 MODE (30)	58.2	0.12		679.3		
SEQ#11 FED 2 MODE (NEUT)	225.8	2.04		50.5		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                       FUEL
VEH.                                          --------- GRAMS / MILE ----------               ECON
 NO.  YR MAKE CID    ENGINE FAMILY            HC      CO      CO2      NOxc     CH4      MPG
----  -- ---- --- -----------------          -----   -----   -----    -----    ----     ----
8152  78 BUIC 231 840B2BCB 8BCV    (CON'T)

          COMMENT : IDLE RPM WITHOUT PROPANE 820 RPM, WITH PROPANE
                    870 RPM.

          SEQ#12 FEDERAL TEST PROC.         1.16    15.8    453.4     1.84               18.4
          SEQ#12 50 MPH CRUISE             14.4     0.01             840.1
          SEQ#12 HIGHWAY FUEL ECON.         0.11     1.1    353.6     2.55               25.0
          SEQ#12 4 SPD IDLE (NEUT)        122.4     0.41              45.8
          SEQ#12 4 SPD IDLE (2500)         15.8     0.01             193.2
          SEQ#12 4 SPD IDLE (NEUT)        145.0     0.59              37.2
          SEQ#12 4 SPD IDLE (DRIV)        192.7     0.66             251.7
          SEQ#12 FED 2 MODE (30)           34.5     0.02             613.6
          SEQ#12 FED 2 MODE (NEUT)        182.4     0.69              58.6

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE MIXTURE & TIMING TO SPEC.

          SEQ#15 FEDERAL TEST PROC.         0.49     6.0    471.5     1.74               18.4
          SEQ#15 50 MPH CRUISE              4.9     0.00             672.3
          SEQ#15 HIGHWAY FUEL ECON.         0.04     0.3    357.4     2.19               24.8
          SEQ#15 4 SPD IDLE (NEUT)          6.9     0.00              63.1
          SEQ#15 4 SPD IDLE (2500)          0.3     0.00             205.5
          SEQ#15 4 SPD IDLE (NEUT)         10.8     0.00              66.8
          SEQ#15 4 SPD IDLE (DRIV)          0.0     0.00             178.3
          SEQ#15 FED 2 MODE (30)           10.5     0.00             475.1
          SEQ#15 FED 2 MODE (NEUT)         53.9     0.00              64.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   14  CO:  0.03   GAIN: 145

8156  78 BUIC 350 350-4661

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: F
          HC: 1300  CO:  1.80   GAIN:  30

          SEQ#11 FEDERAL TEST PROC.         5.24    33.9    587.5     4.53               13.5
          SEQ#11 50 MPH CRUISE             90.9     0.38            1072.1
          SEQ#11 HIGHWAY FUEL ECON.         1.83     9.2    412.7     5.06               20.5
          SEQ#11 4 SPD IDLE (NEUT)       1308.4     0.61              52.1
          SEQ#11 4 SPD IDLE (2500)        104.5     0.39             379.1
          SEQ#11 4 SPD IDLE (NEUT)       1099.6     0.85              50.8
          SEQ#11 4 SPD IDLE (DRIV)        561.7     2.08              91.3
          SEQ#11 FED 2 MODE (30)          262.8     0.50             994.5
          SEQ#11 FED 2 MODE (NEUT)       1434.0     0.57              59.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: F
          HC: 1112  CO:  0.86   GAIN:  40
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                     FUEL
                                            --------- GRAMS / MILE ----------               ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY           HC       CO      CO2     NOxc     CH4          MPG
----  -- ---- --- ------------------        -----   -----   ------   -----    ----         ----
8156  78 BUIC 350 350-4661     (CON'T)

          COMMENT : IDLE CO .55%,HC 1600 PPM,IDLE NEUTRAL 730 RPM.

          SEQ#13 FEDERAL TEST PROC.        5.61    25.1    596.0     4.87                   13.6
          SEQ#13 50 MPH CRUISE            99.2      0.37           1262.5
          SEQ#13 HIGHWAY FUEL ECON.        1.99     8.8    431.4     5.29                   19.7
          SEQ#13 4 SPD IDLE (NEUT)      1530.8      0.24              59.0
          SEQ#13 4 SPD IDLE (2500)       195.4      0.46             347.8
          SEQ#13 4 SPD IDLE (NEUT)      1535.9      0.28              61.7
          SEQ#13 4 SPD IDLE (DRIV)       894.3      0.48             130.3
          SEQ#13 FED 2 MODE (30)         280.3      0.58             967.5
          SEQ#13 FED 2 MODE (NEUT)      1857.4      0.22              71.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: F
          HC: 1536  CO:  0.28    GAIN:  70

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.        6.49    21.9    577.8     3.98                   14.0
          SEQ#15 50 MPH CRUISE           102.5      0.30           1129.7
          SEQ#15 HIGHWAY FUEL ECON.        1.88     6.9    410.7     4.16                   20.8
          SEQ#15 4 SPD IDLE (NEUT)      1959.2      0.10              78.4
          SEQ#15 4 SPD IDLE (2500)       253.4      0.44             323.5
          SEQ#15 4 SPD IDLE (NEUT)      1961.9      0.10              75.1
          SEQ#15 4 SPD IDLE (DRIV)      1061.0      0.09             257.8
          SEQ#15 FED 2 MODE (30)         303.7      0.49             964.4
          SEQ#15 FED 2 MODE (NEUT)      2381.0      0.11              75.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: F
          HC: 1957  CO:  0.10    GAIN: 110

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,FUEL,AIR,
                    CANISTER & OIL FILTERS,PCV VALVE & FILTER ENGINE
                    OIL,DISTRUBUROR CAP,ROTOR & COIL.ADJUSTED IDLE
                    SPEED & MIXTURE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.        6.18    13.8    549.6     3.98                   15.0
          SEQ#16 50 MPH CRUISE           122.1      0.31           1147.3
          SEQ#16 HIGHWAY FUEL ECON.        1.77     5.5    426.3     4.57                   20.1
          SEQ#16 4 SPD IDLE (NEUT)      1515.4      0.05              77.1
          SEQ#16 4 SPD IDLE (2500)       248.6      0.34             330.6
          SEQ#16 4 SPD IDLE (NEUT)      1833.5      0.06              95.0
          SEQ#16 4 SPD IDLE (DRIV)      1080.3      0.04             268.9
          SEQ#16 FED 2 MODE (30)         335.9      0.29             981.9
          SEQ#16 FED 2 MODE (NEUT)      1935.0      0.10              72.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: F
          HC: 1823  CO:  0.06    GAIN: 120
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                             EMISSION RESULTS                   FUEL
VEH.                                  ------------ GRAMS / MILE ------------    ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4    MPG
----  -- ---- --- ------------------   -----   -----   ------    -----   ----   ----
8156  78 BUIC 350 350-4661    (CON'T)

        COMMENT : REPLACED CATALYST.

        SEQ#17 FEDERAL TEST PROC.       1.04     9.4    587.1     2.55          14.7
        SEQ#17 50 MPH CRUISE            11.5    0.01             916.8
        SEQ#17 HIGHWAY FUEL ECON.       0.18     1.0    433.8     3.61          20.4
        SEQ#17 4 SPD IDLE (NEUT)        22.3    0.00              83.8
        SEQ#17 4 SPD IDLE (2500)         7.2    0.00             303.3
        SEQ#17 4 SPD IDLE (NEUT)        28.9    0.00              98.5
        SEQ#17 4 SPD IDLE (DRIV)        17.4    0.00             324.5
        SEQ#17 FED 2 MODE (30)          16.7    0.01             824.9
        SEQ#17 FED 2 MODE (NEUT)       120.8    0.00              83.9

        FOLLOW UP LANE TEST:
        CAT: P    FUEL: F
        HC:   30  CO:  0.00   GAIN:  80

8157  78 BUIC 350 830M4UBFO 8BFV

        PRELIMINARY LANE TEST:
        CAT: P    FUEL: P
        HC:  283  CO:  3.80   GAIN:   0

        SEQ#11 FEDERAL TEST PROC.       2.12    30.1    635.9     2.48          12.9
        SEQ#11 50 MPH CRUISE            31.2    0.01             498.4
        SEQ#11 HIGHWAY FUEL ECON.       0.30     1.7    450.0     2.93          19.6
        SEQ#11 4 SPD IDLE (NEUT)       280.9    1.40              51.8
        SEQ#11 4 SPD IDLE (2500)        46.7    0.02             151.9
        SEQ#11 4 SPD IDLE (NEUT)       286.3    1.69              52.5
        SEQ#11 4 SPD IDLE (DRIV)       210.8    1.55             101.8
        SEQ#11 FED 2 MODE (30)          52.0    0.02             359.9
        SEQ#11 FED 2 MODE (NEUT)       284.3    1.40              50.5

        NO FOLLOW UP LANE TEST DONE


        COMMENT : ADJUSTED IDLE DRIVE 550 RPMS, IDLE NEUTRAL 660
                  RPMS, PROPANE GAIN 50 RPMS, USED UNIVERSAL METHOD.

        SEQ#12 FEDERAL TEST PROC.       1.07     6.9    640.8     2.65          13.6
        SEQ#12 50 MPH CRUISE            11.5    0.00             523.7
        SEQ#12 HIGHWAY FUEL ECON.       0.17     0.2    452.4     3.10          19.6
        SEQ#12 4 SPD IDLE (NEUT)        18.4    0.01              51.9
        SEQ#12 4 SPD IDLE (2500)        19.7    0.01             148.5
        SEQ#12 4 SPD IDLE (NEUT)        30.6    0.00              63.0
        SEQ#12 4 SPD IDLE (DRIV)         5.3    0.01             112.6
        SEQ#12 FED 2 MODE (30)          19.7    0.01             371.0
        SEQ#12 FED 2 MODE (NEUT)        57.6    0.01              65.0

        NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                          EMISSION RESULTS                      FUEL
VEH.                                            ---------- GRAMS / MILE ----------              ECON
 NO.   YR MAKE CID     ENGINE FAMILY        HC       CO       CO2       NOXC     CH4          MPG
----   -- ---- --- -----------------     -----    -----    ------     -----    ----          ----
8157   78 BUIC 350 830M4UBFO 8BFV    (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 550 RPMS, CO .05%, HC 65 PPM,
                    IDLE NEUTRAL 650 RPMS, CO .05%, HC 150 PPM, USED
                    UNIVERSAL METHOD.

          SEQ#13 FEDERAL TEST PROC.   0.87      5.9    613.4     2.43                   14.2
          SEQ#13 50 MPH CRUISE       33.2      0.00              408.4
          SEQ#13 HIGHWAY FUEL ECON.   0.14      0.4    430.9     2.56                   20.5
          SEQ#13 4 SPD IDLE (NEUT)   21.0      0.00               51.2
          SEQ#13 4 SPD IDLE (2500)   24.0      0.00              147.0
          SEQ#13 4 SPD IDLE (NEUT)   27.9      0.01               52.8
          SEQ#13 4 SPD IDLE (DRIV)    3.3      0.01               93.9
          SEQ#13 FED 2 MODE (30)     20.7      0.01              328.6
          SEQ#13 FED 2 MODE (NEUT)   62.5      0.01               53.5

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  224  CO:  0.02   GAIN: 130

          COMMENT : IDLE MIXTURE AND SPEED ADJUSTED TO SPEC.  IDLE
                    ENRICHMENT 635 RPM, ENRICHED 550 RPM CURB IDLE IN
                    DRIVE.

          SEQ#15 FEDERAL TEST PROC.   0.90     10.0    620.5     2.43                   13.9
          SEQ#15 50 MPH CRUISE        7.2      0.01              420.5
          SEQ#15 HIGHWAY FUEL ECON.   0.12      0.1    446.4     2.79                   19.9
          SEQ#15 4 SPD IDLE (NEUT)   15.4      0.01               50.0
          SEQ#15 4 SPD IDLE (2500)   13.5      0.01              143.4
          SEQ#15 4 SPD IDLE (NEUT)   44.4      0.00               47.8
          SEQ#15 4 SPD IDLE (DRIV)    8.2      0.00               85.6
          SEQ#15 FED 2 MODE (30)     15.4      0.02              284.1
          SEQ#15 FED 2 MODE (NEUT)   74.1      0.01               45.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   50  CO:  0.01   GAIN: 180

8158   78 CADI 350 860JOV / 8BA

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   33  CO:  0.02   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.   1.11      6.1    592.3     5.21                   14.7
          SEQ#11 50 MPH CRUISE       34.5      0.01             1242.4
          SEQ#11 HIGHWAY FUEL ECON.   0.33      0.1    409.6     6.40                   21.6
          SEQ#11 4 SPD IDLE (NEUT)   39.8      0.01               28.4
          SEQ#11 4 SPD IDLE (2500)   19.7      0.01              199.2
          SEQ#11 4 SPD IDLE (NEUT)   41.1      0.01               32.3
          SEQ#11 4 SPD IDLE (DRIV)   56.3      0.01               34.9
          SEQ#11 FED 2 MODE (30)     47.7      0.01              842.1
          SEQ#11 FED 2 MODE (NEUT)   75.1      0.01               36.8

          NO FOLLOW UP LANE TEST DONE
```

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                       FUEL
VEH.                                          ---------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC       CO      CO2     NOxc    CH4             MPG
----   -- ---- --- -----------------        -----   -----   ------   -----   ----            ----
8158   78 CADI 350 860JOV / 8BA    (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 600 RPM,PROPANE GAIN 50
                    RPM.USED UNIVERSAL METHOD.

          SEQ#12 FEDERAL TEST PROC.      0.88      5.6    595.4     5.25                     14.6
          SEQ#12 50 MPH CRUISE          36.5      0.01            1204.9
          SEQ#12 HIGHWAY FUEL ECON.      0.31      0.1    407.2     6.44                     21.7
          SEQ#12 4 SPD IDLE (NEUT)      95.2      0.01              44.3
          SEQ#12 4 SPD IDLE (2500)      21.7      0.01             203.7
          SEQ#12 4 SPD IDLE (NEUT)     104.2      0.00              47.8
          SEQ#12 4 SPD IDLE (DRIV)      35.2      0.01              71.9
          SEQ#12 FED 2 MODE (30)        45.0      0.01             969.4
          SEQ#12 FED 2 MODE (NEUT)     154.3      0.01              56.2

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 600 RPM,CO .5%,HC 150 PPM.

          SEQ#15 FEDERAL TEST PROC.      0.88      5.8    612.8     5.43                     14.2
          SEQ#15 50 MPH CRUISE          34.2      0.01            1280.0
          SEQ#15 HIGHWAY FUEL ECON.      0.30      0.1    424.1     6.70                     20.9
          SEQ#15 4 SPD IDLE (NEUT)     100.2      0.01              43.2
          SEQ#15 4 SPD IDLE (2500)      23.3      0.01             197.0
          SEQ#15 4 SPD IDLE (NEUT)     120.4      0.01              51.8
          SEQ#15 4 SPD IDLE (DRIV)      35.2      0.01              73.4
          SEQ#15 FED 2 MODE (30)        42.4      0.01             807.7
          SEQ#15 FED 2 MODE (NEUT)     169.3      0.01              58.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   55  CO:  0.02   GAIN:  30

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR FILTER,OIL
                    FILTER,ENGINE OIL,PCV VALVE,CRANKCASE BREATHER
                    FILTER,EGR VALVE,CARBON CANISTER FILTER.EGR
                    PASSAGE BLOCKED IN THE INTERNAL ENGINE PASSAGE.

          SEQ#16 FEDERAL TEST PROC.      0.78      5.5    586.5     5.16                     14.8
          SEQ#16 50 MPH CRUISE          38.8      0.01            1192.3
          SEQ#16 HIGHWAY FUEL ECON.      0.31      0.2    398.1     5.82                     22.2
          SEQ#16 4 SPD IDLE (NEUT)     123.8      0.00              31.8
          SEQ#16 4 SPD IDLE (2500)      29.6      0.01             176.2
          SEQ#16 4 SPD IDLE (NEUT)     131.4      0.00              48.2
          SEQ#16 4 SPD IDLE (DRIV)      34.8      0.00              71.6
          SEQ#16 FED 2 MODE (30)        51.0      0.01             807.7
          SEQ#16 FED 2 MODE (NEUT)     228.2      0.01              48.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   38  CO:  0.02   GAIN:  15
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                 FUEL
VEH.                                          --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID     ENGINE FAMILY       HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- ----------------     -----   -----   ------   -----   ----     ----
8160   78 CHEV 098 810W1 / 8ABV

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:    82  CO:  2.41   GAIN:    0

          SEQ#11 FEDERAL TEST PROC.    1.10    18.3    316.3     1.31              25.5
          SEQ#11 50 MPH CRUISE         9.2     0.01            884.2
          SEQ#11 HIGHWAY FUEL ECON.    0.09     0.9    239.3     1.60              36.8
          SEQ#11 4 SPD IDLE (NEUT)    88.0     1.35             77.3
          SEQ#11 4 SPD IDLE (2500)     8.9     0.01            252.7
          SEQ#11 4 SPD IDLE (NEUT)    80.4     1.35             86.9
          SEQ#11 FED 2 MODE (30)      19.4     0.01            573.2
          SEQ#11 FED 2 MODE (NEUT)    54.9     0.61             93.9

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE 800 RPM, PROPANE GAIN 60 RPM.

          SEQ#12 FEDERAL TEST PROC.    1.19    16.7    318.3     1.42              25.5
          SEQ#12 50 MPH CRUISE        10.5     0.00            532.8
          SEQ#12 HIGHWAY FUEL ECON.    0.09     1.1    237.3     1.61              37.1
          SEQ#12 4 SPD IDLE (NEUT)    55.9     0.48             58.0
          SEQ#12 4 SPD IDLE (2500)     4.9     0.00            189.1
          SEQ#12 4 SPD IDLE (NEUT)    38.1     0.32             56.1
          SEQ#12 FED 2 MODE (30)      11.8     0.00            424.6
          SEQ#12 FED 2 MODE (NEUT)    28.6     0.22             46.2

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:     7  CO:  0.03   GAIN:   30

          COMMENT : USED PROPANE METHOD SPEC 900 RPMS.  ADJUSTED IDLE
                    SPEED NEUTRAL TO 800 RPMS, PROPANE GAIN 100 RPMS.

          SEQ#15 FEDERAL TEST PROC.    1.09    16.4    323.6     1.27              25.2
          SEQ#15 50 MPH CRUISE         0.0     0.01           1503.0
          SEQ#15 HIGHWAY FUEL ECON.    0.05     0.6    238.5     1.54              37.0
          SEQ#15 4 SPD IDLE (NEUT)     1.6     0.01             76.9
          SEQ#15 4 SPD IDLE (2500)     0.0     0.01            241.2
          SEQ#15 4 SPD IDLE (NEUT)     1.6     0.01             74.6
          SEQ#15 FED 2 MODE (30)      11.5     0.01            540.8
          SEQ#15 FED 2 MODE (NEUT)    10.2     0.01             76.4

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    50  CO:  0.19   GAIN:    0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                 FUEL
VEH.                                       ---------- GRAMS / MILE -----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2    NOxc    CH4          MPG
----   -- ---- --- ------------------    -----   -----   ------   -----   ----         ----
8165   78 CHEV 196 840B2BCB 8BCV

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  184   CO:  4.07   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.      2.30    22.6    510.9    2.67                 16.0
          SEQ#11 50 MPH CRUISE           14.4    0.07           1082.1
          SEQ#11 HIGHWAY FUEL ECON.      0.24     2.2    352.4    3.15                 24.9
          SEQ#11 4 SPD IDLE (NEUT)      355.0    2.22             42.7
          SEQ#11 4 SPD IDLE (2500)       14.4    0.08            194.5
          SEQ#11 4 SPD IDLE (NEUT)      202.7    3.92             44.3
          SEQ#11 FED 2 MODE (30)         22.7    0.21            761.2
          SEQ#11 FED 2 MODE (NEUT)      209.4    4.21             48.9

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE SPEED 800 RPMS, PROPANE GAIN 50
                    RPMS.

          SEQ#12 FEDERAL TEST PROC.      2.44    17.1    521.3    2.78                 16.0
          SEQ#12 50 MPH CRUISE           21.0    0.02            989.7
          SEQ#12 HIGHWAY FUEL ECON.      0.21     1.4    349.2    3.28                 25.2
          SEQ#12 4 SPD IDLE (NEUT)       12.5    0.01             44.0
          SEQ#12 4 SPD IDLE (2500)        3.0    0.01            208.8
          SEQ#12 4 SPD IDLE (NEUT)      255.7    1.09             32.2
          SEQ#12 FED 2 MODE (30)         11.5    0.02            679.3
          SEQ#12 FED 2 MODE (NEUT)      197.7    1.25             37.2

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE NEUTRAL 800 RPMS, CO .4%, HC 800
                    PPM.  USED UNIVERSAL METHOD.

          SEQ#13 FEDERAL TEST PROC.      1.20     6.7    555.4    3.05                 15.6
          SEQ#13 50 MPH CRUISE            0.0    0.01            966.9
          SEQ#13 HIGHWAY FUEL ECON.      0.08     0.4    358.2    3.70                 24.7
          SEQ#13 4 SPD IDLE (NEUT)       10.2    0.00             80.8
          SEQ#13 4 SPD IDLE (2500)        0.0    0.00            192.2
          SEQ#13 4 SPD IDLE (NEUT)       11.5    0.00             80.7
          SEQ#13 FED 2 MODE (30)          0.0    0.00            581.3
          SEQ#13 FED 2 MODE (NEUT)       16.1    0.00             75.3

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                     FUEL
                                           ---------- GRAMS / MILE ----------            ECON
VEH.
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2      NOxc     CH4      MPG
----   -- ---- --- -----------------      -----   -----   ------    -----    ----     ----
8165   78 CHEV 196 840B2BCB 8BCV     (CON'T)

          COMMENT : ADJUSTED IDLE NEUTRAL 800 RPMS, PROPANE GAIN 180
                    RPMS, CO .04%, HC 100 PPM.

          SEQ#15 FEDERAL TEST PROC.    1.12     5.9    564.0     3.19               15.4
          SEQ#15 50 MPH CRUISE          0.0    0.02             964.4
          SEQ#15 HIGHWAY FUEL ECON.    0.08     0.5    351.7     3.35               25.2
          SEQ#15 4 SPD IDLE (NEUT)     16.7    0.00              84.0
          SEQ#15 4 SPD IDLE (2500)      0.0    0.00             201.4
          SEQ#15 4 SPD IDLE (NEUT)     22.0    0.00              75.3
          SEQ#15 FED 2 MODE (30)        0.0    0.01             600.5
          SEQ#15 FED 2 MODE (NEUT)     29.6    0.01              75.5

          NO FOLLOW UP LANE TEST DONE

          COMMENT : REPLACED OIL AND OIL FILTER, SPARK PLUGS, FUEL
                    FILTER, PCV VALVE AND FILTER.  REPLACED AIR
                    FILTER ELEMENT.  SET TO MANUFACTURER SPEC.

          SEQ#16 FEDERAL TEST PROC.    1.74     6.1    615.7     1.55               14.1
          SEQ#16 50 MPH CRUISE          6.6    0.01             270.9
          SEQ#16 HIGHWAY FUEL ECON.    0.08     0.6    385.9     1.40               22.9
          SEQ#16 4 SPD IDLE (NEUT)     20.7    0.00              88.4
          SEQ#16 4 SPD IDLE (2500)     25.0    0.00              88.1
          SEQ#16 4 SPD IDLE (NEUT)     19.7    0.00              77.5
          SEQ#16 FED 2 MODE (30)        7.2    0.01             172.7
          SEQ#16 FED 2 MODE (NEUT)     32.9    0.00              72.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   17  CO:  0.02   GAIN: 190
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                                TEXAS PILOT I/M STUDY


                              LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                     EMISSION RESULTS                FUEL
VEH.                                      --------- GRAMS / MILE -----------         ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC     CO     CO2    NOxc   CH4     MPG
----  -- ---- --- -----------------     -----  -----  ------  -----  ----    ----
8170  78 CHEV 305 810Y2BCCH 8BCV

               PRELIMINARY LANE TEST:
               CAT: P    FUEL: P
               HC:  302  CO:  2.79   GAIN:  40

               SEQ#11 FEDERAL TEST PROC.   2.37   41.3   540.2   1.42           14.5
               SEQ#11 50 MPH CRUISE        26.3   0.78         118.3
               SEQ#11 HIGHWAY FUEL ECON.   0.90   29.7   379.4   0.88           20.7
               SEQ#11 4 SPD IDLE (NEUT)   242.9   0.87          22.4
               SEQ#11 4 SPD IDLE (2500)    80.7   1.96          88.1
               SEQ#11 4 SPD IDLE (NEUT)   229.9   1.65          37.0
               SEQ#11 4 SPD IDLE (DRIV)   194.4   1.79          80.8
               SEQ#11 FED 2 MODE (30)     117.8   1.84         160.3
               SEQ#11 FED 2 MODE (NEUT)   267.1   1.79          40.3

               NO FOLLOW UP LANE TEST DONE


               COMMENT : IDLE RPM 500 IN DRIVE, CO .2%.

               SEQ#13 FEDERAL TEST PROC.   0.74   18.9   541.7   1.10           15.5
               SEQ#13 50 MPH CRUISE        10.8   0.09          78.0
               SEQ#13 HIGHWAY FUEL ECON.   0.55   25.3   385.9   0.78           20.8
               SEQ#13 4 SPD IDLE (NEUT)     3.6   0.00          52.1
               SEQ#13 4 SPD IDLE (2500)    32.9   0.94          50.0
               SEQ#13 4 SPD IDLE (NEUT)     1.0   0.00          66.2
               SEQ#13 4 SPD IDLE (DRIV)     3.0   0.00         129.0
               SEQ#13 FED 2 MODE (30)       7.9   0.01         144.7
               SEQ#13 FED 2 MODE (NEUT)    15.4   0.01          61.9

               NO FOLLOW UP LANE TEST DONE


               COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.  IDLE RPM 480 IN
                         DRIVE.  IDLE CO .01%.

               SEQ#15 FEDERAL TEST PROC.   0.90   21.2   544.3   1.07           15.3
               SEQ#15 50 MPH CRUISE         3.3   0.14          61.6
               SEQ#15 HIGHWAY FUEL ECON.   0.55   26.1   391.5   0.81           20.4
               SEQ#15 4 SPD IDLE (NEUT)     6.2   0.00          39.4
               SEQ#15 4 SPD IDLE (2500)     4.3   0.04          51.0
               SEQ#15 4 SPD IDLE (NEUT)     0.0   0.00          59.2
               SEQ#15 4 SPD IDLE (DRIV)     0.0   0.00         118.3
               SEQ#15 FED 2 MODE (30)      12.5   0.00         157.8
               SEQ#15 FED 2 MODE (NEUT)    11.5   0.00          50.9

               NO FOLLOW UP LANE TEST DONE




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                EMISSION RESULTS                  FUEL
VEH.                                 --------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc    CH4     MPG
----  -- ---- --- ------------------  -----   -----   ------   -----   ----     ----
8170  78 CHEV 305 810Y2BCCH 8BCV    (CON'T)

          COMMENT : RESET CHOKE VACUUM BREAK, REPLACED PCV LINE,
                    INSTALLED AIR CLEANER COVER CORRECTLY.  NEW SPARK
                    PLUGS, AIR, FUEL, OIL AND CRANKCASE FILTERS, AND
                    ENGINE OIL.  ADJUSTED IDLE SPEED AND MIXTURE.

          SEQ#16 FEDERAL TEST PROC.   0.97    10.6    556.8    1.66             15.4
          SEQ#16 50 MPH CRUISE         8.9    0.00           246.7
          SEQ#16 HIGHWAY FUEL ECON.   0.08     0.4    383.4    1.30             23.1
          SEQ#16 4 SPD IDLE (NEUT)     0.0    0.00            52.8
          SEQ#16 4 SPD IDLE (2500)     8.5    0.01           111.6
          SEQ#16 4 SPD IDLE (NEUT)     0.0    0.00            61.1
          SEQ#16 4 SPD IDLE (DRIV)     0.0    0.00           122.4
          SEQ#16 FED 2 MODE (30)      18.4    0.00           161.1
          SEQ#16 FED 2 MODE (NEUT)    17.7    0.00            60.0

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   20  CO:  0.00   GAIN:  90

8171  78 CHEV 305 810Y2BCCH 8BCV

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  136  CO:  4.60   GAIN:   5

          SEQ#11 FEDERAL TEST PROC.   1.11    32.5    609.6    1.15             13.4
          SEQ#11 50 MPH CRUISE         3.9    0.01           236.3
          SEQ#11 HIGHWAY FUEL ECON.   0.45    15.6    430.0    0.78             19.5
          SEQ#11 4 SPD IDLE (NEUT)   153.0    4.17            40.2
          SEQ#11 4 SPD IDLE (2500)     4.9    0.03            88.0
          SEQ#11 4 SPD IDLE (NEUT)   139.7    4.85            48.2
          SEQ#11 4 SPD IDLE (DRIV)   176.7    4.25            53.7
          SEQ#11 FED 2 MODE (30)      13.5    0.04           154.2
          SEQ#11 FED 2 MODE (NEUT)   120.4    3.48            34.6

          NO FOLLOW UP LANE TEST DONE

          COMMENT : REPLACED VACUUM ADVANCE UNIT.PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.   1.59    12.9    519.9    2.69             16.3
          SEQ#12 50 MPH CRUISE        12.5    0.00           380.1
          SEQ#12 HIGHWAY FUEL ECON.   0.16     2.1    387.1    1.83             22.7
          SEQ#12 4 SPD IDLE (NEUT)     8.9    0.00            61.1
          SEQ#12 4 SPD IDLE (2500)    15.8    0.00           120.6
          SEQ#12 4 SPD IDLE (NEUT)     8.9    0.01            44.6
          SEQ#12 4 SPD IDLE (DRIV)     6.9    0.05            11.6
          SEQ#12 FED 2 MODE (30)      28.9    0.00           226.3
          SEQ#12 FED 2 MODE (NEUT)    45.0    0.01            27.0

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8171	78	CHEV	305	810Y2BCCH 8BCV	(CON'T)					

COMMENT : ADJUSTED IDLE CO TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	1.91	20.7	527.0	2.58		15.7
SEQ#13 50 MPH CRUISE	17.1	0.01		426.6		
SEQ#13 HIGHWAY FUEL ECON.	0.20	2.3	372.2	2.08		23.6
SEQ#13 4 SPD IDLE (NEUT)	335.9	1.24		28.8		
SEQ#13 4 SPD IDLE (2500)	20.0	0.00		126.0		
SEQ#13 4 SPD IDLE (NEUT)	286.0	1.96		28.9		
SEQ#13 4 SPD IDLE (DRIV)	278.1	1.96		71.7		
SEQ#13 FED 2 MODE (30)	47.7	0.00		267.9		
SEQ#13 FED 2 MODE (NEUT)	346.6	1.69		33.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	1.02	10.4	543.4	2.59		15.8
SEQ#15 50 MPH CRUISE	11.8	0.00		394.3		
SEQ#15 HIGHWAY FUEL ECON.	0.14	2.2	386.7	1.93		22.7
SEQ#15 4 SPD IDLE (NEUT)	8.5	0.00		71.1		
SEQ#15 4 SPD IDLE (2500)	9.2	0.01		129.0		
SEQ#15 4 SPD IDLE (NEUT)	4.3	0.01		62.8		
SEQ#15 4 SPD IDLE (DRIV)	0.0	0.00		142.6		
SEQ#15 FED 2 MODE (30)	22.3	0.00		211.3		
SEQ#15 FED 2 MODE (NEUT)	40.4	0.00		71.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP.REPLACED OIL & OIL FILTER,GAS FILTER,CANISTER FILTER,AIR FILTER,SPARK PLUGS,PCV VALVE & FILTER ADJUSTED IDLE SPEED TO SPEC.ADJUSTED PRIMARY VACUUM BREAK TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	0.76	8.7	615.3	3.25		14.1
SEQ#16 50 MPH CRUISE	8.2	0.00		556.0		
SEQ#16 HIGHWAY FUEL ECON.	0.22	5.8	423.1	2.50		20.5
SEQ#16 4 SPD IDLE (NEUT)	10.8	0.00		146.0		
SEQ#16 4 SPD IDLE (2500)	12.5	0.00		134.2		
SEQ#16 4 SPD IDLE (NEUT)	19.4	0.00		62.9		
SEQ#16 4 SPD IDLE (DRIV)	9.8	0.00		77.6		
SEQ#16 FED 2 MODE (30)	35.2	0.00		182.4		
SEQ#16 FED 2 MODE (NEUT)	80.0	0.00		56.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 20 CO: 0.00 GAIN: 100

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                         EMISSION RESULTS                FUEL
VEH.                                          --------- GRAMS / MILE ----------          ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4      MPG
----  -- ---- --- -----------------     ----   -----   ------   -----   ----     ----
8172  78 CHEV 305 810Y2BCCH 8BCV

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  265   CO:  4.46    GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    2.83    60.1    520.8    4.17             14.2
          SEQ#11 50 MPH CRUISE         9.5     0.01           1440.3
          SEQ#11 HIGHWAY FUEL ECON.    0.29     4.3    382.4    5.17             22.8
          SEQ#11 4 SPD IDLE (NEUT)   246.0     3.01             45.7
          SEQ#11 4 SPD IDLE (2500)    23.0     0.01            419.5
          SEQ#11 4 SPD IDLE (NEUT)   231.5     3.07             47.7
          SEQ#11 4 SPD IDLE (DRIV)   224.5     3.15             77.9
          SEQ#11 FED 2 MODE (30)     113.8     0.40           1027.0
          SEQ#11 FED 2 MODE (NEUT)   253.0     3.16             47.7

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  280   CO:  4.48    GAIN:   0

          COMMENT : IDLE RPM DRIVE 500,PROPANE GAIN 65 RPMS IN DRIVE,
                    IDLE RPM 600 NEUTRAL,PROPANE GAIN 155 RPMS IN
                    NEUTRAL.

          SEQ#12 FEDERAL TEST PROC.    1.07    16.2    541.7    5.10             15.6
          SEQ#12 50 MPH CRUISE        10.2     0.01           1635.7
          SEQ#12 HIGHWAY FUEL ECON.    0.11     0.6    412.3    5.91             21.5
          SEQ#12 4 SPD IDLE (NEUT)    33.2     0.01             54.4
          SEQ#12 4 SPD IDLE (2500)     7.2     0.01            501.4
          SEQ#12 4 SPD IDLE (NEUT)    62.5     0.01             48.0
          SEQ#12 4 SPD IDLE (DRIV)    25.6     0.01             82.4
          SEQ#12 FED 2 MODE (30)      14.1     0.01            916.9
          SEQ#12 FED 2 MODE (NEUT)    89.3     0.01             81.6

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    35  CO:  0.02    GAIN: 180

          COMMENT : ADJUSTED IDLE DRIVE 500 RPMS,IDLE NEUTRAL 600
                    RPMS,CO NEUTRAL .21%,HC 420 PPM.USED UNIVERSAL
                    METHOD.

          SEQ#13 FEDERAL TEST PROC.    1.78    27.0    537.7    4.26             15.2
          SEQ#13 50 MPH CRUISE         9.8     0.01           1442.8
          SEQ#13 HIGHWAY FUEL ECON.    0.14     1.9    396.2    5.35             22.2
          SEQ#13 4 SPD IDLE (NEUT)    16.1     0.01             74.9
          SEQ#13 4 SPD IDLE (2500)     1.3     0.01            427.6
          SEQ#13 4 SPD IDLE (NEUT)    69.5     0.44             41.8
          SEQ#13 4 SPD IDLE (DRIV)     8.2     0.01            128.3
          SEQ#13 FED 2 MODE (30)      16.1     0.01            947.2
          SEQ#13 FED 2 MODE (NEUT)    27.9     0.01             77.8

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2

                                                 EMISSION RESULTS                 FUEL
VEH.                                --------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY     HC      CO      CO2     NOxc    CH4     MPG
----   -- ---- --- ----------------- -----   -----   ------   -----   ----    ----
8172   78 CHEV 305 810Y2BCCH 8BCV    (CON'T)

           COMMENT : IDLE SPEED AND MIXTURE SET TO SPEC.ENRICHED IDLE
                     520-540 RPM IN DRIVE,IDLE SPEED 500 RPM IN DRIVE.

           SEQ#15 FEDERAL TEST PROC.    1.39    19.2    538.2    4.68            15.5
           SEQ#15 50 MPH CRUISE         5.9     0.01            1640.7
           SEQ#15 HIGHWAY FUEL ECON.    0.14     1.6    401.2    5.55            22.0
           SEQ#15 4 SPD IDLE (NEUT)   250.3     0.55              27.7
           SEQ#15 4 SPD IDLE (2500)     7.2     0.01             501.4
           SEQ#15 4 SPD IDLE (NEUT)    25.0     0.00              74.1
           SEQ#15 4 SPD IDLE (DRIV)     6.6     0.00             156.7
           SEQ#15 FED 2 MODE (30)      15.4     0.02             976.9
           SEQ#15 FED 2 MODE (NEUT)    41.7     0.00              76.7

           NO FOLLOW UP LANE TEST DONE


           COMMENT : CLEARED VACUUM LINE AND RECONNECTED.REPLACED
                     SPARK PLUGS,AIR,FUEL,OIL AND CRANKCASE BREATHER
                     FILTERS,AND ENGINE OIL.RESET CHOKE THERMOSTAT TO
                     SPEC.

           SEQ#16 FEDERAL TEST PROC.    0.75     8.1    547.8    2.27            15.8
           SEQ#16 50 MPH CRUISE         8.5     0.00             446.8
           SEQ#16 HIGHWAY FUEL ECON.    0.14     1.3    401.5    2.12            22.0
           SEQ#16 4 SPD IDLE (NEUT)    11.5     0.00              69.2
           SEQ#16 4 SPD IDLE (2500)     3.6     0.01             176.8
           SEQ#16 4 SPD IDLE (NEUT)     4.6     0.01              78.8
           SEQ#16 4 SPD IDLE (DRIV)     0.0     0.01             148.0
           SEQ#16 FED 2 MODE (30)      51.6     0.62             400.3
           SEQ#16 FED 2 MODE (NEUT)    37.5     0.01              71.0

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    22  CO:  0.01   GAIN:  50


8175   78 CHEV 350 810L4BFCH 8BFV

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:  260   CO:  3.70   GAIN:  10

           SEQ#11 FEDERAL TEST PROC.    1.60    21.8    602.4    3.10            13.8
           SEQ#11 50 MPH CRUISE        82.3     0.00             495.4
           SEQ#11 HIGHWAY FUEL ECON.    0.14     1.1    425.3    2.81            20.8
           SEQ#11 4 SPD IDLE (NEUT)   212.4     1.28              60.5
           SEQ#11 4 SPD IDLE (2500)    48.0     0.00             134.4
           SEQ#11 4 SPD IDLE (NEUT)   233.5     2.42              62.2
           SEQ#11 4 SPD IDLE (DRIV)   250.0     2.77             149.8
           SEQ#11 FED 2 MODE (30)      40.1     0.00             215.2
           SEQ#11 FED 2 MODE (NEUT)   253.7     2.27              59.6

           NO FOLLOW UP LANE TEST DONE


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                   EMISSION RESULTS                  FUEL
VEH.                                     --------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc    CH4       MPG
----  -- ---- --- -----------------      -----   -----   -----   -----   ----      ----
8175  78 CHEV 350 810L4BFCH 8BFV       (CON'T)

           COMMENT : ADJUSTED IDLE DRIVE 480 RPMS,IDLE NEUTRAL 560
                     RPMS.IDLE CO .5%,HC 600 PPM.

           SEQ#13 FEDERAL TEST PROC.    0.68     2.2   609.5    2.96              14.4
           SEQ#13 50 MPH CRUISE        13.5     0.00           459.0
           SEQ#13 HIGHWAY FUEL ECON.    0.07     0.0   425.5    2.78              20.8
           SEQ#13 4 SPD IDLE (NEUT)     6.9     0.00            52.5
           SEQ#13 4 SPD IDLE (2500)    13.5     0.01           142.6
           SEQ#13 4 SPD IDLE (NEUT)     8.9     0.00            62.5
           SEQ#13 4 SPD IDLE (DRIV)     1.6     0.00           125.4
           SEQ#13 FED 2 MODE (30)      21.3     0.00           194.1
           SEQ#13 FED 2 MODE (NEUT)    28.6     0.00            55.6

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 500 RPMS. CO .05%,HC 100
                     PPM.PROPANE GAIN 70 RPMS.

           SEQ#15 FEDERAL TEST PROC.    0.81     3.7   597.6    2.64              14.6
           SEQ#15 50 MPH CRUISE         9.8     0.00           525.7
           SEQ#15 HIGHWAY FUEL ECON.    0.07     0.0   420.8    2.57              21.1
           SEQ#15 4 SPD IDLE (NEUT)     6.9     0.00            28.2
           SEQ#15 4 SPD IDLE (2500)    10.5     0.00           148.3
           SEQ#15 4 SPD IDLE (NEUT)    14.8     0.00            34.4
           SEQ#15 4 SPD IDLE (DRIV)     6.2     0.00            45.7
           SEQ#15 FED 2 MODE (30)      11.8     0.01           213.4
           SEQ#15 FED 2 MODE (NEUT)    41.1     0.00            34.8

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   20  CO:  0.00   GAIN: 194

           COMMENT : REPLACED SPARK PLUGS,AIR,FUEL,OIL,CRANKCASE
                     BREATHER FILTERS.PCV VALVE AND ENGINE OIL.RESET
                     TIMING AND IDLE SPEED.

           SEQ#16 FEDERAL TEST PROC.    0.69     3.0   614.1    2.42              14.3
           SEQ#16 50 MPH CRUISE         0.0     0.00           344.7
           SEQ#16 HIGHWAY FUEL ECON.    0.07     0.0   427.5    2.36              20.8
           SEQ#16 4 SPD IDLE (NEUT)     4.9     0.00            29.4
           SEQ#16 4 SPD IDLE (2500)     8.2     0.00           103.6
           SEQ#16 4 SPD IDLE (NEUT)     7.5     0.00            35.5
           SEQ#16 4 SPD IDLE (DRIV)     0.0     0.00            48.8
           SEQ#16 FED 2 MODE (30)       6.6     0.00           148.3
           SEQ#16 FED 2 MODE (NEUT)    33.8     0.00            32.3

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   22  CO:  0.01   GAIN: 300
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                        FUEL
VEH.                                         --------- GRAMS / MILE ----------                ECON
 NO.   YR MAKE CID    ENGINE FAMILY            HC       CO       CO2      NOxc      CH4       MPG
----   -- ---- --- ------------------        -----    ----     -----     -----     ----      ----
8176   78 CHRY 318 FD-318-2-CAE-7

             PRELIMINARY LANE TEST:
             CAT: P      FUEL: P
             HC:  228   CO:  3.75    GAIN:   0

             SEQ#11 FEDERAL TEST PROC.    2.62     34.9     516.1      2.40                15.3
             SEQ#11 50 MPH CRUISE         18.7     0.02              879.5
             SEQ#11 HIGHWAY FUEL ECON.    0.68      8.0     369.4      2.29                23.1
             SEQ#11 4 SPD IDLE (NEUT)    169.7     0.88               48.8
             SEQ#11 4 SPD IDLE (2500)      6.9     0.07              209.1
             SEQ#11 4 SPD IDLE (NEUT)    150.4     1.11               53.2
             SEQ#11 4 SPD IDLE (DRIV)    214.8     0.96               96.2
             SEQ#11 FED 2 MODE (30)       79.0     0.03              833.0
             SEQ#11 FED 2 MODE (NEUT)    153.0     1.17               54.4

             NO FOLLOW UP LANE TEST DONE

             COMMENT : ADJUSTED IDLE NEUTRAL 750 RPMS, PROPANE GAIN 50
                       RPMS.  USED UNIVERSAL METHOD.

             SEQ#12 FEDERAL TEST PROC.    1.23     12.5     544.2      2.63                15.6
             SEQ#12 50 MPH CRUISE         10.5     0.01              771.3
             SEQ#12 HIGHWAY FUEL ECON.    0.14      0.9     361.6      2.41                24.4
             SEQ#12 4 SPD IDLE (NEUT)     21.7     0.01               55.0
             SEQ#12 4 SPD IDLE (2500)      1.0     0.02              147.8
             SEQ#12 4 SPD IDLE (NEUT)      0.0     0.00               70.9
             SEQ#12 4 SPD IDLE (DRIV)     17.7     0.01              188.6
             SEQ#12 FED 2 MODE (30)       30.2     0.01              885.6
             SEQ#12 FED 2 MODE (NEUT)     12.1     0.00               57.9

             FOLLOW UP LANE TEST:
             CAT: P      FUEL: P
             HC:   30   CO:  0.03    GAIN:  50

             COMMENT : IDLE SPEED 750 RPMS IN NEUTRAL, IDLE CO .05%.

             SEQ#13 FEDERAL TEST PROC.    1.35     14.8     548.5      2.75                15.4
             SEQ#13 50 MPH CRUISE          0.0     0.02              772.3
             SEQ#13 HIGHWAY FUEL ECON.    0.21      2.1     370.6      2.31                23.7
             SEQ#13 4 SPD IDLE (NEUT)     12.8     0.01               52.7
             SEQ#13 4 SPD IDLE (2500)      0.0     0.01              197.0
             SEQ#13 4 SPD IDLE (NEUT)      0.0     0.01               67.3
             SEQ#13 4 SPD IDLE (DRIV)     14.1     0.01              185.5
             SEQ#13 FED 2 MODE (30)       26.0     0.02              868.4
             SEQ#13 FED 2 MODE (NEUT)      5.3     0.01               62.1

             NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                  EMISSION RESULTS                FUEL
                                         --------- GRAMS / MILE ----------        ECON
VEH.
 NO.   YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- -----------------    -----   -----   ------   -----   ----     ---
8176   78 CHRY 318 FD-318-2-CAE-7     (CON'T)

           COMMENT : IDLE SPEED NEUTRAL 750 RPMS, IDLE CO .035, IDLE
                     HC 60 PPM.

           SEQ#15 FEDERAL TEST PROC.   1.06    11.4    558.4    2.74              15.3
           SEQ#15 50 MPH CRUISE         0.0    0.02            611.6
           SEQ#15 HIGHWAY FUEL ECON.   0.21     2.1    368.7    2.33              23.8
           SEQ#15 4 SPD IDLE (NEUT)    26.0    0.00             50.7
           SEQ#15 4 SPD IDLE (2500)     0.0    0.04            110.1
           SEQ#15 4 SPD IDLE (NEUT)     0.0    0.00             57.7
           SEQ#15 4 SPD IDLE (DRIV)    12.1    0.00            155.7
           SEQ#15 FED 2 MODE (30)      20.7    0.01            792.6
           SEQ#15 FED 2 MODE (NEUT)    16.4    0.00             51.6

           NO FOLLOW UP LANE TEST DONE

           COMMENT : REPLACED SPARK PLUGS, PCV VALVE FILTER, OIL AND
                     OIL FILTER, PURGED CANISTER AND FUEL FILTERS, AIR
                     CLEANER ELEMENT, SET TO MANUFACTURER SPECS.

           SEQ#16 FEDERAL TEST PROC.   0.88     8.3    558.4    2.75              15.5
           SEQ#16 50 MPH CRUISE        17.4    0.33            657.1
           SEQ#16 HIGHWAY FUEL ECON.   0.17     1.2    364.3    3.50              24.2
           SEQ#16 4 SPD IDLE (NEUT)    19.7    0.00             49.2
           SEQ#16 4 SPD IDLE (2500)     0.0    0.01            195.2
           SEQ#16 4 SPD IDLE (NEUT)     0.7    0.00             59.0
           SEQ#16 4 SPD IDLE (DRIV)    21.7    0.00            166.8
           SEQ#16 FED 2 MODE (30)      25.3    0.00            697.5
           SEQ#16 FED 2 MODE (NEUT)    11.2    0.00             51.5

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:    21  CO:  0.02   GAIN:  90

8178   78 DODG 105 CF-105-2-BPE-5

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:    25  CO:  0.02   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.   0.93     4.2    381.5    1.53              22.7
           SEQ#11 50 MPH CRUISE        13.5    0.00            496.4
           SEQ#11 HIGHWAY FUEL ECON.   0.12     1.0    255.9    2.23              34.4
           SEQ#11 4 SPD IDLE (NEUT)    16.4    0.00             38.1
           SEQ#11 4 SPD IDLE (2500)     1.3    0.00             61.3
           SEQ#11 4 SPD IDLE (NEUT)     2.0    0.00             38.7
           SEQ#11 FED 2 MODE (30)       0.0    0.03            154.7
           SEQ#11 FED 2 MODE (NEUT)     1.6    0.00             36.6

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:     3  CO:  0.00   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                       FUEL
VEH.                                          ---------- GRAMS / MILE -----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY             HC       CO      CO2     NOxc     CH4          MPG
----   -- ---- ---  -----------------         -----    -----   -----    -----    ----         ----
8178   78 DODG 105 CF-105-2-BPE-5    (CON'T)

            COMMENT : IDLE RPM 900 NEUTRAL,WITH PROPANE950 RPM.

            SEQ#12 FEDERAL TEST PROC.    0.88      4.3    385.4    1.96                   22.5
            SEQ#12 50 MPH CRUISE        49.0      0.00            529.7
            SEQ#12 HIGHWAY FUEL ECON.    0.17      0.3    240.3    2.88                   36.8
            SEQ#12 4 SPD IDLE (NEUT)   100.5      0.00             36.3
            SEQ#12 4 SPD IDLE (2500)    33.8      0.00             58.5
            SEQ#12 4 SPD IDLE (NEUT)    35.5      0.00             39.7
            SEQ#12 FED 2 MODE (30)      32.9      0.01            454.9
            SEQ#12 FED 2 MODE (NEUT)    33.8      0.00             46.5

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    11  CO:  0.00   GAIN:  60

            COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

            SEQ#15 FEDERAL TEST PROC.    0.63      4.1    383.5    1.51                   22.6
            SEQ#15 50 MPH CRUISE        33.8      0.00            454.9
            SEQ#15 HIGHWAY FUEL ECON.    0.16      1.1    242.7    2.30                   36.2
            SEQ#15 4 SPD IDLE (NEUT)   147.0      0.00             41.5
            SEQ#15 4 SPD IDLE (2500)    37.8      0.01             57.5
            SEQ#15 4 SPD IDLE (NEUT)    68.1      0.00             41.0
            SEQ#15 FED 2 MODE (30)      64.2      0.01            461.0
            SEQ#15 FED 2 MODE (NEUT)    38.8      0.00             52.9

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    69  CO:  0.00   GAIN: 200

            COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR,FUEL,OIL &
                      CARBON CANISTER FILTER,ENGINE OIL & PCV
                      VALVE.ADJUSTED PRIMARY VACUUM BREAK,IDLE SPEED &
                      MIXUTER TO SPEC.

            SEQ#16 FEDERAL TEST PROC.    1.01      3.7    426.3    2.41                   20.4
            SEQ#16 50 MPH CRUISE        32.2      0.00            606.2
            SEQ#16 HIGHWAY FUEL ECON.    0.18      0.5    234.4    2.69                   37.7
            SEQ#16 4 SPD IDLE (NEUT)   133.4      0.00             40.2
            SEQ#16 4 SPD IDLE (2500)    35.5      0.00             81.1
            SEQ#16 4 SPD IDLE (NEUT)    88.6      0.00             38.5
            SEQ#16 FED 2 MODE (30)      54.6      0.00            611.2
            SEQ#16 FED 2 MODE (NEUT)    35.8      0.00             50.1

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    89  CO:  0.00   GAIN: 130
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8179	78	DODG	225	FD-225-2-CAE-1						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 148 CO: 4.02 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	2.61	36.9	443.5	2.91		17.4
SEQ#11 50 MPH CRUISE	47.7	0.02		789.5		
SEQ#11 HIGHWAY FUEL ECON.	0.69	4.6	329.2	2.01		26.2
SEQ#11 4 SPD IDLE (NEUT)	134.4	3.51		82.3		
SEQ#11 4 SPD IDLE (2500)	41.7	0.02		416.5		
SEQ#11 4 SPD IDLE (NEUT)	127.7	3.25		89.2		
SEQ#11 4 SPD IDLE (DRIV)	200.7	3.26		167.5		
SEQ#11 FED 2 MODE (30)	83.3	0.04		2534.3		
SEQ#11 FED 2 MODE (NEUT)	129.1	3.42		108.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE RPM 750 NEUTRAL, PROPANE GAIN 50 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	1.61	15.5	459.6	2.94		18.1
SEQ#12 50 MPH CRUISE	43.4	0.01		809.8		
SEQ#12 HIGHWAY FUEL ECON.	0.45	2.3	351.6	2.33		24.9
SEQ#12 4 SPD IDLE (NEUT)	25.3	0.00		85.4		
SEQ#12 4 SPD IDLE (2500)	30.2	0.01		320.5		
SEQ#12 4 SPD IDLE (NEUT)	17.7	0.00		85.3		
SEQ#12 4 SPD IDLE (DRIV)	45.4	0.00		183.2		
SEQ#12 FED 2 MODE (30)	68.1	0.02		2258.1		
SEQ#12 FED 2 MODE (NEUT)	22.7	0.00		86.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE NEUTRAL 750 RPM, CO .1%.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.60	14.2	466.5	3.06		18.0
SEQ#15 50 MPH CRUISE	34.2	0.01		763.3		
SEQ#15 HIGHWAY FUEL ECON.	0.29	1.0	333.7	2.20		26.4
SEQ#15 4 SPD IDLE (NEUT)	19.4	0.00		79.7		
SEQ#15 4 SPD IDLE (2500)	23.3	0.00		300.2		
SEQ#15 4 SPD IDLE (NEUT)	10.5	0.00		85.8		
SEQ#15 4 SPD IDLE (DRIV)	37.5	0.00		219.3		
SEQ#15 FED 2 MODE (30)	58.2	0.01		2593.4		
SEQ#15 FED 2 MODE (NEUT)	17.4	0.00		94.9		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

```
                                LISTING OF TEST RESULTS
                                      HOUSTON #2

                                                        EMISSION RESULTS                 FUEL
VEH.                                           ---------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC       CO      CO2     NOxc   CH4      MPG
----   -- ---- --- -----------------      -----    -----   -----    -----  ----     ----
8179   78 DODG 225 FD-225-2-CAE-1        (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED AIR, FUEL, OIL AND
                     CHARCOAL CANISTER FILTERS, SPARK PLUGS, PCV VALVE,
                      ENGINE OIL.  ADJUSTED TIMING AND IDLE SPEED AND
                     MIXTURE.

           SEQ#16 FEDERAL TEST PROC.      4.15      9.8    486.2     3.53              17.2
           SEQ#16 50 MPH CRUISE         225.7      0.01            791.6
           SEQ#16 HIGHWAY FUEL ECON.      0.99      0.8    349.9     2.46              25.1
           SEQ#16 4 SPD IDLE (NEUT)     852.9      0.00             94.9
           SEQ#16 4 SPD IDLE (2500)     199.7      0.00            248.7
           SEQ#16 4 SPD IDLE (NEUT)     594.1      0.00            100.8
           SEQ#16 4 SPD IDLE (DRIV)     546.7      0.00            315.4
           SEQ#16 FED 2 MODE (30)       728.4      0.02           2297.0
           SEQ#16 FED 2 MODE (NEUT)     472.7      0.00            124.4

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:  496   CO:  0.03   GAIN: 140

8182   78 FORD 140 F2.3A1X95 / BB

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:   13   CO:  0.02   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.      0.84      5.2    421.8     2.39              20.5
           SEQ#11 50 MPH CRUISE          43.7      0.01           1262.5
           SEQ#11 HIGHWAY FUEL ECON.      0.22      0.6    275.5     3.89              32.0
           SEQ#11 4 SPD IDLE (NEUT)      29.2      0.00             36.5
           SEQ#11 4 SPD IDLE (2500)      10.8      0.00            116.7
           SEQ#11 4 SPD IDLE (NEUT)      18.7      0.00             45.7
           SEQ#11 FED 2 MODE (30)        39.4      0.01            819.1
           SEQ#11 FED 2 MODE (NEUT)      19.7      0.00             48.5

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:   18   CO:  0.03   GAIN:   0

           COMMENT : ADJUSTED IDLE NEUTRAL 850 RPMS, PROPANE GAIN 50
                     RPMS.  USED UNIVERSAL METHOD.

           SEQ#12 FEDERAL TEST PROC.      1.00      5.6    402.0     2.49              21.4
           SEQ#12 50 MPH CRUISE          49.0      0.00           1172.3
           SEQ#12 HIGHWAY FUEL ECON.      0.22      0.5    274.2     3.74              32.2
           SEQ#12 4 SPD IDLE (NEUT)     107.5      0.00             31.3
           SEQ#12 4 SPD IDLE (2500)       4.6      0.00            162.4
           SEQ#12 4 SPD IDLE (NEUT)      62.9      0.00             34.5
           SEQ#12 FED 2 MODE (30)        58.9      0.01            851.2
           SEQ#12 FED 2 MODE (NEUT)      46.0      0.00             39.7

           NO FOLLOW UP LANE TEST DONE


  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                          EMISSION RESULTS                 FUEL
VEH.                                            --------- GRAMS / MILE ----------          ECON
 NO.  YR MAKE CID     ENGINE FAMILY           HC       CO       CO2     NOxc     CH4       MPG
----  -- ---- --- ------------------       -----    -----    ------    -----    ----      ----
8182  78 FORD 140 F2.3A1X95 / BB       (CON'T)

          COMMENT : ADJUSTED IDLE NEUTRAL 850 RPMS, IDLE CO .04%, HC
                    70 PPM.

          SEQ#15 FEDERAL TEST PROC.     0.95      5.7     420.9     2.29                20.5
          SEQ#15 50 MPH CRUISE          39.8     0.01             1244.9
          SEQ#15 HIGHWAY FUEL ECON.     0.22      0.6     288.8     4.01                30.6
          SEQ#15 4 SPD IDLE (NEUT)      26.3     0.00               35.3
          SEQ#15 4 SPD IDLE (2500)      10.5     0.00              111.1
          SEQ#15 4 SPD IDLE (NEUT)      18.1     0.00               37.7
          SEQ#15 FED 2 MODE (30)        46.0     0.01              807.7
          SEQ#15 FED 2 MODE (NEUT)      19.0     0.00               39.3

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    14  CO:   0.02    GAIN:    0

8186  78 FORD 302 F302C2X132LA

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:    56  CO:   0.02    GAIN:    0

          SEQ#11 FEDERAL TEST PROC.     3.54     69.7     636.3     1.02                11.7
          SEQ#11 50 MPH CRUISE          54.6     0.00              486.3
          SEQ#11 HIGHWAY FUEL ECON.     0.48      2.6     433.6     1.88                20.2
          SEQ#11 4 SPD IDLE (NEUT)     178.0     3.41               68.3
          SEQ#11 4 SPD IDLE (2500)      96.6     0.01             1476.1
          SEQ#11 4 SPD IDLE (NEUT)     180.0     3.51               67.3
          SEQ#11 4 SPD IDLE (DRIV)     337.4     3.91             1089.5
          SEQ#11 FED 2 MODE (30)       108.8     0.01             1069.0
          SEQ#11 FED 2 MODE (NEUT)     202.4     4.12               65.5

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE TO 600 RPMS, PROPANE GAIN OF
                    40 RPMS IN DRIVE.

          SEQ#12 FEDERAL TEST PROC.     2.05     19.2     672.0     1.53                12.5
          SEQ#12 50 MPH CRUISE          43.7     0.00              495.4
          SEQ#12 HIGHWAY FUEL ECON.     0.45      0.1     436.6     2.46                20.3
          SEQ#12 4 SPD IDLE (NEUT)      73.8     0.00              103.9
          SEQ#12 4 SPD IDLE (2500)      86.6     0.00              127.0
          SEQ#12 4 SPD IDLE (NEUT)     150.4     0.00              112.9
          SEQ#12 4 SPD IDLE (DRIV)      58.6     0.00              234.5
          SEQ#12 FED 2 MODE (30)        75.1     0.00              361.9
          SEQ#12 FED 2 MODE (NEUT)     226.5     0.00               96.5

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   174  CO:   0.01    GAIN: 130
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                       FUEL
VEH.                                     --------- GRAMS / MILE ----------                 ECON
 NO.   YR MAKE CID    ENGINE FAMILY       HC       CO       CO2     NOxc    CH4           MPG
----   -- ---- --- -----------------    -----    -----    ------   -----   ----          ----
8186   78 FORD 302 F302C2X132LA     (CON'T)

            COMMENT : IDLE DRIVE 600 RPMS, CO .02%, HC 100 PPM, PROPANE
                      GAIN DRIVE 50 RPMS.

            SEQ#15 FEDERAL TEST PROC.    1.38     20.0     688.2    1.39                   12.3
            SEQ#15 50 MPH CRUISE         38.5     0.00            461.0
            SEQ#15 HIGHWAY FUEL ECON.    0.41      0.3     460.3    2.48                   19.2
            SEQ#15 4 SPD IDLE (NEUT)     80.0     0.01             96.2
            SEQ#15 4 SPD IDLE (2500)     96.9     0.00            114.7
            SEQ#15 4 SPD IDLE (NEUT)    137.0     0.00             95.9
            SEQ#15 4 SPD IDLE (DRIV)     53.3     0.00            206.0
            SEQ#15 FED 2 MODE (30)       72.4     0.00            336.6
            SEQ#15 FED 2 MODE (NEUT)    261.1     0.00             96.5

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    77  CO:  0.02   GAIN: 220

            COMMENT : MAJOR TUNE-UP.  REPLACED FUEL, AIR, OIL AND
                      BREATHER FILTERS, IDLE SPEED AND MIXTURE ADJUSTED.

            SEQ#16 FEDERAL TEST PROC.    2.07     28.6     660.7    1.42                   12.5
            SEQ#16 50 MPH CRUISE         46.0     0.00            510.5
            SEQ#16 HIGHWAY FUEL ECON.    0.41      0.3     437.5    2.43                   20.2
            SEQ#16 4 SPD IDLE (NEUT)     72.4     0.01            112.6
            SEQ#16 4 SPD IDLE (2500)     80.0     0.01            124.9
            SEQ#16 4 SPD IDLE (NEUT)    141.7     0.01            124.7
            SEQ#16 4 SPD IDLE (DRIV)     49.3     0.01            256.8
            SEQ#16 FED 2 MODE (30)       73.8     0.00            342.7
            SEQ#16 FED 2 MODE (NEUT)    234.6     0.01            109.0

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    38  CO:  0.00   GAIN: 210

8187   78 FORD 302 F302C2X132LA

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:    48  CO:  0.02   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.    2.14     33.0     717.5    0.74                   11.4
            SEQ#11 50 MPH CRUISE         29.6     0.01             56.8
            SEQ#11 HIGHWAY FUEL ECON.    0.28      2.7     474.7    0.58                   18.5
            SEQ#11 4 SPD IDLE (NEUT)    619.0     8.82             19.9
            SEQ#11 4 SPD IDLE (2500)    927.3     0.04             40.7
            SEQ#11 4 SPD IDLE (NEUT)    669.0     9.28             15.8
            SEQ#11 4 SPD IDLE (DRIV)    890.0    10.41             10.2
            SEQ#11 FED 2 MODE (30)       65.5     0.01             40.2
            SEQ#11 FED 2 MODE (NEUT)    643.9     9.55             11.6

            NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                EMISSION RESULTS                 FUEL
VEH.                                    --------- GRAMS / MILE ----------        ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc    CH4     MPG
----  -- ---- --- ------------------   -----   -----   ------   -----   ----    ----
8187  78 FORD 302 F302C2X132LA    (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 600 RPMS, IDLE NEUTRAL 780
                    RPMS, PROPANE GAIN 50 RPMS.

          SEQ#12 FEDERAL TEST PROC.    1.46    18.4    660.3    0.89            12.8
          SEQ#12 50 MPH CRUISE        20.7     0.01             59.0
          SEQ#12 HIGHWAY FUEL ECON.    0.31     1.7    461.7    0.69     !      19.1
          SEQ#12 4 SPD IDLE (NEUT)    13.8     0.02             59.7
          SEQ#12 4 SPD IDLE (2500)    65.8     0.02             39.1
          SEQ#12 4 SPD IDLE (NEUT)     7.2     0.00             57.9
          SEQ#12 4 SPD IDLE (DRIV)   201.4     0.80             43.8
          SEQ#12 FED 2 MODE (30)      18.4     0.01             41.9
          SEQ#12 FED 2 MODE (NEUT)    28.6     0.01             55.2

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   24  CO:  0.01   GAIN:  81

          COMMENT : ADJUSTED IDLE DRIVE 600 RPMS, IDLE NEUTRAL 760
                    RPMS, IDLE CO .45%, HC 100 PPM.  USED UNIVERSAL
                    METHOD.

          SEQ#13 FEDERAL TEST PROC.    1.58    17.8    682.0    0.86            12.4
          SEQ#13 50 MPH CRUISE        37.5     0.01             61.3
          SEQ#13 HIGHWAY FUEL ECON.    0.31     1.5    471.0    0.66            18.7
          SEQ#13 4 SPD IDLE (NEUT)   167.7     0.50             32.7
          SEQ#13 4 SPD IDLE (2500)    85.3     0.01             46.6
          SEQ#13 4 SPD IDLE (NEUT)     8.9     0.00             58.5
          SEQ#13 4 SPD IDLE (DRIV)   251.7     1.19             59.1
          SEQ#13 FED 2 MODE (30)      44.4     0.00             42.0
          SEQ#13 FED 2 MODE (NEUT)    22.3     0.00             52.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   18  CO:  0.01   GAIN:   0

          COMMENT : ADJUSTED IDLE DRIVE 600 RPMS, IDLE NEUTRAL 780
                    RPMS, IDLE CO .05%, HC 85 PPM, PROPANE GAIN 80
                    RPMS.

          SEQ#15 FEDERAL TEST PROC.    1.39    15.1    684.4    0.97            12.5
          SEQ#15 50 MPH CRUISE        35.8     0.00             67.4
          SEQ#15 HIGHWAY FUEL ECON.    0.34     0.8    467.8    0.68            18.9
          SEQ#15 4 SPD IDLE (NEUT)    53.6     0.17             62.5
          SEQ#15 4 SPD IDLE (2500)    99.2     0.01             53.1
          SEQ#15 4 SPD IDLE (NEUT)    12.8     0.00             73.3
          SEQ#15 4 SPD IDLE (DRIV)   157.3     0.78             72.0
          SEQ#15 FED 2 MODE (30)      58.9     0.00             47.9
          SEQ#15 FED 2 MODE (NEUT)    44.4     0.00             70.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   10  CO:  0.01   GAIN: 130
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                      FUEL
VEH.                                       --------- GRAMS / MILE ----------                  ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc    CH4               MPG
----  -- ---- --- ------------------     -----   -----   ------   -----   ----               ----
8187  78 FORD 302 F302C2X132LA    (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL
                     AND CRANKCASE BREATHER FILTERS, REPLACED PCV
                     VALVE AND ADJUSTED IDLE SPEED AND TIMING.

           SEQ#16 FEDERAL TEST PROC.      1.85    10.9    649.6    1.30                       13.2
           SEQ#16 50 MPH CRUISE          46.4     0.00             83.3
           SEQ#16 HIGHWAY FUEL ECON.      0.46     0.8    460.9    0.94                       19.1
           SEQ#16 4 SPD IDLE (NEUT)      24.3     0.01             92.6
           SEQ#16 4 SPD IDLE (2500)      96.2     0.02             43.4
           SEQ#16 4 SPD IDLE (NEUT)       8.9     0.00             86.5
           SEQ#16 4 SPD IDLE (DRIV)       8.5     0.01            170.3
           SEQ#16 FED 2 MODE (30)       107.5     0.00             71.7
           SEQ#16 FED 2 MODE (NEUT)      76.7     0.01             88.3

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   34  CO:  0.02   GAIN: 170

8189  78 FORD 302 F302C2X132LA

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:   16  CO:  0.02   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.      0.87    19.0    749.5    3.73                       11.3
           SEQ#11 50 MPH CRUISE          12.5     0.01           1285.0
           SEQ#11 HIGHWAY FUEL ECON.      0.25     0.6    521.8    5.19                       17.0
           SEQ#11 4 SPD IDLE (NEUT)     417.0     7.88             39.1
           SEQ#11 4 SPD IDLE (2500)      26.3     0.02            425.6
           SEQ#11 4 SPD IDLE (NEUT)      29.9     0.01             47.1
           SEQ#11 4 SPD IDLE (DRIV)     359.5     9.39             26.8
           SEQ#11 FED 2 MODE (30)       104.5     0.01            481.2
           SEQ#11 FED 2 MODE (NEUT)      42.4     0.01             45.9

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE RPM 600 IN DRIVE, PROPANE GAIN 50 RPM.

           SEQ#12 FEDERAL TEST PROC.      1.29     5.3    696.7    4.82                       12.5
           SEQ#12 50 MPH CRUISE          16.7     0.00           1513.0
           SEQ#12 HIGHWAY FUEL ECON.      0.38     0.4    463.3    5.26                       19.1
           SEQ#12 4 SPD IDLE (NEUT)      73.1     0.00             88.5
           SEQ#12 4 SPD IDLE (2500)       9.5     0.00            476.1
           SEQ#12 4 SPD IDLE (NEUT)      75.7     0.00             74.9
           SEQ#12 4 SPD IDLE (DRIV)      50.0     0.00            198.3
           SEQ#12 FED 2 MODE (30)        51.3     0.01            916.9
           SEQ#12 FED 2 MODE (NEUT)      71.4     0.00             71.8

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                               LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                EMISSION RESULTS               FUEL
VEH.                                   ---------- GRAMS / MILE ----------      ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC     CO      CO2    NOxc    CH4     MPG
----  -- ---- --- ------------------    -----  -----  ------   -----   ----   ----
8189  78 FORD 302 F302C2X132LA    (CON'T)

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .04%, HC 80 PPM,
                      PROPANE GAIN 120 RPM.

            SEQ#15 FEDERAL TEST PROC.   1.11    4.7    659.2    5.02              13.2
            SEQ#15 50 MPH CRUISE        37.8   0.01           1645.7
            SEQ#15 HIGHWAY FUEL ECON.   0.31    0.2    495.0    6.24              17.9
            SEQ#15 4 SPD IDLE (NEUT)   110.5   0.01             76.3
            SEQ#15 4 SPD IDLE (2500)    13.1   0.00            484.2
            SEQ#15 4 SPD IDLE (NEUT)   133.7   0.00             62.3
            SEQ#15 4 SPD IDLE (DRIV)    55.6   0.00            140.3
            SEQ#15 FED 2 MODE (30)      55.9   0.01            986.9
            SEQ#15 FED 2 MODE (NEUT)   177.3   0.00             62.3

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  138  CO:  0.01   GAIN: 270

            COMMENT : REPLACED SPARK PLUGS, AIR FILTER, FUEL FILTER,
                      OIL FILTER, PCV VALVE AND FILTER.  REPAIRED EGR
                      NIPPLE.

            SEQ#16 FEDERAL TEST PROC.   1.17    7.3    669.5    1.43              13.0
            SEQ#16 50 MPH CRUISE        22.0   0.00            161.9
            SEQ#16 HIGHWAY FUEL ECON.   0.37    0.8    463.7    1.34              19.0
            SEQ#16 4 SPD IDLE (NEUT)    64.2   0.00             47.1
            SEQ#16 4 SPD IDLE (2500)    30.2   0.00             50.2
            SEQ#16 4 SPD IDLE (NEUT)    59.9   0.00             38.2
            SEQ#16 4 SPD IDLE (DRIV)    33.2   0.00             96.2
            SEQ#16 FED 2 MODE (30)      33.5   0.00             86.1
            SEQ#16 FED 2 MODE (NEUT)    91.3   0.00             37.6

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  162  CO:  0.02   GAIN: 310

8190  78 FORD 351 B351MB2X160LC

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:   25  CO:  0.02   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.   0.47    4.3    768.2    2.27              11.4
            SEQ#11 50 MPH CRUISE         7.9   0.01            394.3
            SEQ#11 HIGHWAY FUEL ECON.   0.15    0.2    437.5    2.35              20.3
            SEQ#11 4 SPD IDLE (NEUT)   426.9   3.76             75.5
            SEQ#11 4 SPD IDLE (2500)   225.1   0.01            177.3
            SEQ#11 4 SPD IDLE (NEUT)    28.6   0.01            149.3
            SEQ#11 4 SPD IDLE (DRIV)   120.4   3.24            140.6
            SEQ#11 FED 2 MODE (30)      46.7   0.01            409.4
            SEQ#11 FED 2 MODE (NEUT)    90.0   0.01            107.0

            NO FOLLOW UP LANE TEST DONE


  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                         FUEL
VEH.                                     --------- GRAMS / MILE ----------                    ECON
 NO.   YR MAKE CID   ENGINE FAMILY        HC      CO      CO2     NOxc    CH4    MPG
----   -- ---- ---  ----------------    -----   -----   ------   -----   ----   ----
8190   78 FORD 351  B351MB2X160LC      (CON'T)

          COMMENT : PROPANE PRE-ADJUSTMENT HAD NO EFFECT, 50 RPM GAIN
                    WAS ACHIEVED AT STEP 9 OF PROPANE ADJUSTMENT
                    PROCEDURE A-2.

          SEQ#12 FEDERAL TEST PROC.     0.45     2.6    709.8    3.09           12.4
          SEQ#12 50 MPH CRUISE         11.2     0.00            372.0
          SEQ#12 HIGHWAY FUEL ECON.     0.20     0.0    445.1    2.28           19.9
          SEQ#12 4 SPD IDLE (NEUT)     46.0     0.01            196.8
          SEQ#12 4 SPD IDLE (2500)    127.4     0.00            163.4
          SEQ#12 4 SPD IDLE (NEUT)     47.7     0.00            219.1
          SEQ#12 4 SPD IDLE (DRIV)      3.0     0.01            856.3
          SEQ#12 FED 2 MODE (30)       35.8     0.00            295.2
          SEQ#12 FED 2 MODE (NEUT)    127.4     0.00            166.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   48  CO:  0.02   GAIN: 140

          COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.     0.49     2.2    677.0    2.91           13.0
          SEQ#15 50 MPH CRUISE         12.1     0.00            352.8
          SEQ#15 HIGHWAY FUEL ECON.     0.18     0.1    421.8    2.30           21.0
          SEQ#15 4 SPD IDLE (NEUT)     56.9     0.01            126.5
          SEQ#15 4 SPD IDLE (2500)    106.8     0.00            142.9
          SEQ#15 4 SPD IDLE (NEUT)     49.3     0.00            134.4
          SEQ#15 4 SPD IDLE (DRIV)      4.9     0.00            475.1
          SEQ#15 FED 2 MODE (30)       48.3     0.00            285.1
          SEQ#15 FED 2 MODE (NEUT)    117.5     0.00             99.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   32  CO:  0.02   GAIN: 135

8191   78 FORD 351  B351MB2X160LC

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  522  CO:  0.02   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     0.83    21.3    749.3    1.08           11.3
          SEQ#11 50 MPH CRUISE         18.4     0.01            227.3
          SEQ#11 HIGHWAY FUEL ECON.     0.15     2.4    473.9    1.36           18.6
          SEQ#11 4 SPD IDLE (NEUT)    236.2     2.44             48.5
          SEQ#11 4 SPD IDLE (2500)     66.8     0.01            100.8
          SEQ#11 4 SPD IDLE (NEUT)      8.9     0.00             51.1
          SEQ#11 4 SPD IDLE (DRIV)    240.6     4.17             54.2
          SEQ#11 FED 2 MODE (30)       50.3     0.00            175.0
          SEQ#11 FED 2 MODE (NEUT)     16.7     0.00             45.7

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8191	78	FORD	351	B351MB2X160LC (CON'T)						

COMMENT : ADJUSTED IDLE SPEED DRIVE 600 RPM, IDLE NEUTRAL 765 RPM, PROPANE GAIN IN NEUTRAL 55 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	0.51	10.5	692.2	1.25		12.5
SEQ#12 50 MPH CRUISE	30.9	0.00		181.6		
SEQ#12 HIGHWAY FUEL ECON.	0.18	1.3	430.8	1.05		20.5
SEQ#12 4 SPD IDLE (NEUT)	27.3	0.01		67.9		
SEQ#12 4 SPD IDLE (2500)	47.4	0.01		99.0		
SEQ#12 4 SPD IDLE (NEUT)	10.8	0.00		63.6		
SEQ#12 4 SPD IDLE (DRIV)	2.6	0.01		106.0		
SEQ#12 FED 2 MODE (30)	53.6	0.00		178.0		
SEQ#12 FED 2 MODE (NEUT)	34.8	0.00		60.1		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 26 CO: 0.02 GAIN: 80

COMMENT : IDLE CO .2%, IDLE DRIVE 600 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	0.71	17.3	699.0	1.14		12.2
SEQ#13 50 MPH CRUISE	20.4	0.00		178.8		
SEQ#13 HIGHWAY FUEL ECON.	0.19	2.3	438.4	1.09		20.1
SEQ#13 4 SPD IDLE (NEUT)	24.6	0.00		64.6		
SEQ#13 4 SPD IDLE (2500)	53.3	0.00		93.4		
SEQ#13 4 SPD IDLE (NEUT)	14.1	0.00		59.2		
SEQ#13 4 SPD IDLE (DRIV)	4.3	0.07		60.3		
SEQ#13 FED 2 MODE (30)	57.6	0.01		163.2		
SEQ#13 FED 2 MODE (NEUT)	36.8	0.01		52.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	0.60	15.3	706.8	1.14		12.1
SEQ#15 50 MPH CRUISE	8.5	0.00		176.0		
SEQ#15 HIGHWAY FUEL ECON.	0.18	1.9	449.7	1.05		19.6
SEQ#15 4 SPD IDLE (NEUT)	24.3	0.00		66.4		
SEQ#15 4 SPD IDLE (2500)	40.4	0.00		93.8		
SEQ#15 4 SPD IDLE (NEUT)	11.2	0.00		63.8		
SEQ#15 4 SPD IDLE (DRIV)	24.3	0.17		30.5		
SEQ#15 FED 2 MODE (30)	47.4	0.00		177.8		
SEQ#15 FED 2 MODE (NEUT)	34.5	0.00		52.0		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 16 CO: 0.01 GAIN: 85

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                    FUEL
VEH.                                           --------- GRAMS / MILE ----------           ECON
 NO.   YR MAKE CID    ENGINE FAMILY             HC      CO      CO2     NOxc    CH4        MPG
----   -- ---- ---  -----------------         -----   -----   ------   -----   ----       ----
8192   78 FORD 400  B351MB2X160LC

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:   37   CO:  0.00   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.        1.21     4.8    725.4    1.40               12.0
          SEQ#11 50 MPH CRUISE             82.0    0.01            225.2
          SEQ#11 HIGHWAY FUEL ECON.        0.38     0.0    482.7    1.29               18.3
          SEQ#11 4 SPD IDLE (NEUT)        573.7    2.35             48.3
          SEQ#11 4 SPD IDLE (2500)        221.5    0.01            119.3
          SEQ#11 4 SPD IDLE (NEUT)         30.2    0.01             66.9
          SEQ#11 4 SPD IDLE (DRIV)        121.4    2.35             62.6
          SEQ#11 FED 2 MODE (30)          217.5    0.01            242.6
          SEQ#11 FED 2 MODE (NEUT)         95.6    0.01             51.6

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE TO 575 RPM, IDLE NEUTRAL TO
                    710 RPM, PROPANE GAIN 50 RPM.  USED UNIVERSAL
                    METHOD.

          SEQ#12 FEDERAL TEST PROC.        1.38     5.1    705.2    1.55               12.4
          SEQ#12 50 MPH CRUISE             72.1    0.01            215.8
          SEQ#12 HIGHWAY FUEL ECON.        0.45     0.2    474.6    1.30               18.6
          SEQ#12 4 SPD IDLE (NEUT)         54.6    0.01             76.5
          SEQ#12 4 SPD IDLE (2500)        196.7    0.01            117.5
          SEQ#12 4 SPD IDLE (NEUT)         28.3    0.00             74.1
          SEQ#12 4 SPD IDLE (DRIV)         13.8    0.00            160.1
          SEQ#12 FED 2 MODE (30)          129.1    0.01            223.4
          SEQ#12 FED 2 MODE (NEUT)        100.5    0.00             65.3

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   50   CO:  0.06   GAIN:  75

          COMMENT : IDLE MIXTURE AND SPEED ADJUSTED TO MANUFACTURERS
                    SPEC., PROPANE GAIN 20 RPM IN DRIVE.

          SEQ#15 FEDERAL TEST PROC.        1.38     5.5    715.2    1.44               12.2
          SEQ#15 50 MPH CRUISE             41.4    0.01            195.0
          SEQ#15 HIGHWAY FUEL ECON.        0.42     0.6    487.7    1.25               18.1
          SEQ#15 4 SPD IDLE (NEUT)         56.6    0.01             71.4
          SEQ#15 4 SPD IDLE (2500)        243.3    0.01            116.7
          SEQ#15 4 SPD IDLE (NEUT)         31.9    0.00             74.2
          SEQ#15 4 SPD IDLE (DRIV)         24.6    0.01            189.6
          SEQ#15 FED 2 MODE (30)          112.5    0.00            206.8
          SEQ#15 FED 2 MODE (NEUT)        132.4    0.00             60.4

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                  FUEL
VEH.                                           ---------- GRAMS / MILE -----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY             HC     CO      CO2     NOxc    CH4     MPG
----   -- ---- ---  -----------------          ----   -----   ------   -----   ----    ----
8192   78 FORD 400  B351MB2X160LC      (CON'T)

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                    OIL AND CRANKCASE BREATHER FILTERS, PCV VALVE AND
                    ENGINE OIL.  ADJUSTED IDLE SPEED AND TIMING.

          SEQ#16 FEDERAL TEST PROC.     1.87     5.3    710.5    1.82            12.2
          SEQ#16 50 MPH CRUISE          42.7    0.00           181.6
          SEQ#16 HIGHWAY FUEL ECON.     0.33     0.2    478.3    1.37            18.5
          SEQ#16 4 SPD IDLE (NEUT)      65.5    0.00            84.3
          SEQ#16 4 SPD IDLE (2500)     169.7    0.01            99.3
          SEQ#16 4 SPD IDLE (NEUT)      51.6    0.00            86.7
          SEQ#16 4 SPD IDLE (DRIV)      30.6    0.01           225.5
          SEQ#16 FED 2 MODE (30)        89.3    0.00           202.9
          SEQ#16 FED 2 MODE (NEUT)     123.8    0.00            74.5

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  110  CO:  0.02   GAIN: 100

8193  78 LINC 460 F460A2X160TOA

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  560  CO:  6.40   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     0.63     4.3    772.7    2.08            11.4
          SEQ#11 50 MPH CRUISE           1.3    0.00           240.9
          SEQ#11 HIGHWAY FUEL ECON.     0.08     0.4    520.3    2.08            17.0
          SEQ#11 4 SPD IDLE (NEUT)     335.9    3.16            39.7
          SEQ#11 4 SPD IDLE (2500)      27.3    0.00           114.7
          SEQ#11 4 SPD IDLE (NEUT)      15.4    0.00            50.1
          SEQ#11 4 SPD IDLE (DRIV)     120.8    1.90            46.8
          SEQ#11 FED 2 MODE (30)        21.7    0.00           188.6
          SEQ#11 FED 2 MODE (NEUT)      96.6    0.00            40.5

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   16  CO:  0.00   GAIN:   0

          COMMENT : IDLE NEUTRAL 720 RPM, WITH PROPANE 770 RPM.

          SEQ#12 FEDERAL TEST PROC.     0.73     3.5    766.7    2.25            11.5
          SEQ#12 50 MPH CRUISE           2.3    0.00           284.1
          SEQ#12 HIGHWAY FUEL ECON.     0.11     0.1    520.9    2.31            17.0
          SEQ#12 4 SPD IDLE (NEUT)     151.0    0.00            65.9
          SEQ#12 4 SPD IDLE (2500)       1.0    0.00           124.7
          SEQ#12 4 SPD IDLE (NEUT)      16.7    0.00            63.2
          SEQ#12 4 SPD IDLE (DRIV)       7.2    0.00           107.5
          SEQ#12 FED 2 MODE (30)        13.1    0.00           191.1
          SEQ#12 FED 2 MODE (NEUT)     165.7    0.00            48.8

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   16  CO:  0.00   GAIN: 100
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8193	78	LINC	460	F460A2X160TOA (CON'T)						

COMMENT : ADJUSTED IDLE MIXTURE TO .5%, IDLE SPEED 580 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	2.17	40.9	788.5	1.26		10.3
SEQ#13 50 MPH CRUISE	2.6	0.00		195.7		
SEQ#13 HIGHWAY FUEL ECON.	0.08	1.0	532.7	1.67		16.6
SEQ#13 4 SPD IDLE (NEUT)	590.9	9.26		14.4		
SEQ#13 4 SPD IDLE (2500)	13.5	0.01		96.6		
SEQ#13 4 SPD IDLE (NEUT)	183.7	5.78		20.0		
SEQ#13 4 SPD IDLE (DRIV)	548.4	10.21		13.1		
SEQ#13 FED 2 MODE (30)	39.4	0.01		115.7		
SEQ#13 FED 2 MODE (NEUT)	577.4	9.39		14.6		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 185 CO: 5.84 GAIN: 0

COMMENT : ADJUSTED TIMING, IDLE SPEED TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	0.79	2.4	768.6	2.35		11.5
SEQ#15 50 MPH CRUISE	12.8	0.00		372.0		
SEQ#15 HIGHWAY FUEL ECON.	0.15	0.0	513.5	2.64		17.3
SEQ#15 4 SPD IDLE (NEUT)	153.7	0.00		60.2		
SEQ#15 4 SPD IDLE (2500)	45.0	0.00		128.3		
SEQ#15 4 SPD IDLE (NEUT)	95.2	0.00		62.9		
SEQ#15 4 SPD IDLE (DRIV)	78.7	0.00		107.0		
SEQ#15 FED 2 MODE (30)	22.3	0.00		237.6		
SEQ#15 FED 2 MODE (NEUT)	376.9	0.00		47.5		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 96 CO: 0.00 GAIN: 70

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
8197	78	MERC	351	F351WC2X132LB

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 129 CO: 3.80 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	2.44	53.8	632.6	7.46		12.2
SEQ#11 50 MPH CRUISE	17.7	0.01		2337.1		
SEQ#11 HIGHWAY FUEL ECON.	0.19	3.1	421.7	8.50		20.8
SEQ#11 4 SPD IDLE (NEUT)	120.1	2.35		74.9		
SEQ#11 4 SPD IDLE (2500)	12.5	0.01		567.1		
SEQ#11 4 SPD IDLE (NEUT)	112.1	2.61		84.2		
SEQ#11 4 SPD IDLE (DRIV)	172.3	2.50		190.1		
SEQ#11 FED 2 MODE (30)	26.6	0.00		1826.1		
SEQ#11 FED 2 MODE (NEUT)	129.1	2.92		90.6		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                               HOUSTON #2

VEH.                                                  EMISSION RESULTS                       FUEL
 NO.   YR MAKE CID     ENGINE FAMILY        --------- GRAMS / MILE ----------              ECON
----   -- ---- ---  -----------------       HC      CO      CO2      NOxc     CH4        MPG
8197   78 MERC 351  F351WC2X132LB    (CON'T) -----   -----   ------   -----    ----       ----

          COMMENT : IDLE SPEED 800 RPM NEUTRAL,600 RPM DRIVE,PROPANE
                    GAIN 50 RPM IN NEUTRAL.

          SEQ#12 FEDERAL TEST PROC.    1.87    32.1     612.6     7.63                13.3
          SEQ#12 50 MPH CRUISE         18.7    0.00              2299.5
          SEQ#12 HIGHWAY FUEL ECON.    0.17     1.5     416.2     8.37                21.2
          SEQ#12 4 SPD IDLE (NEUT)     81.4    0.44                51.7
          SEQ#12 4 SPD IDLE (2500)      4.6    0.00               576.2
          SEQ#12 4 SPD IDLE (NEUT)     43.1    0.68                67.3
          SEQ#12 4 SPD IDLE (DRIV)    121.4    0.71               160.1
          SEQ#12 FED 2 MODE (30)       16.7    0.01              1821.1
          SEQ#12 FED 2 MODE (NEUT)     94.3    0.82                81.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE SPEED 600 RPM DRIVE,IDLE CO .3%.

          SEQ#13 FEDERAL TEST PROC.    1.35    18.8     647.1     7.63                13.0
          SEQ#13 50 MPH CRUISE         16.1    0.01              2199.0
          SEQ#13 HIGHWAY FUEL ECON.    0.15     1.1     418.0     8.41                21.1
          SEQ#13 4 SPD IDLE (NEUT)     26.9    0.01                90.6
          SEQ#13 4 SPD IDLE (2500)     10.5    0.00               478.2
          SEQ#13 4 SPD IDLE (NEUT)      9.8    0.03                64.2
          SEQ#13 4 SPD IDLE (DRIV)      6.6    0.01               169.1
          SEQ#13 FED 2 MODE (30)       22.7    0.01              1720.9
          SEQ#13 FED 2 MODE (NEUT)     13.5    0.04                77.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE TO 600 RPM,CO .4%,HC 60 PPM,
                    IDLE NEUTRAL TO 730 RPM,CO .05%,HC 500 PPM,
                    PROPANE GAIN IN NEUTRAL 120 RPM.

          SEQ#15 FEDERAL TEST PROC.    0.77     5.5     659.3     7.73                13.2
          SEQ#15 50 MPH CRUISE         10.2    0.01              1942.6
          SEQ#15 HIGHWAY FUEL ECON.    0.08     0.0     416.5     7.75                21.3
          SEQ#15 4 SPD IDLE (NEUT)     17.7    0.00                82.8
          SEQ#15 4 SPD IDLE (2500)      1.3    0.00               549.9
          SEQ#15 4 SPD IDLE (NEUT)     13.8    0.00                99.5
          SEQ#15 4 SPD IDLE (DRIV)      3.9    0.00               213.7
          SEQ#15 FED 2 MODE (30)       15.1    0.00              1653.2
          SEQ#15 FED 2 MODE (NEUT)     38.8    0.00               107.5

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    20  CO:   0.01    GAIN: 150



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                          AUTOMOTIVE TESTING LABORATORIES,INC.

                                TEXAS PILOT I/M STUDY


                                LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                       EMISSION RESULTS                   FUEL
VEH.                                         ---------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID     ENGINE FAMILY          HC      CO      CO2     NOxc    CH4        MPG
----   -- ---- --- ----------------         -----   -----   ------   -----   ----       ----
8197   78 MERC 351 F351WC2X132LB     (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                     CRANKCASE BREATHER FILTERS, PCV VALVE, ADJUSTED
                     IDLE SPEED AND MIXTURE.  REMOVED NON-FACTORY
                     INSTALLED DELAY VALVE FROM EGR LINE.

           SEQ#16 FEDERAL TEST PROC.     2.46    35.1    807.8    0.91               10.2
           SEQ#16 50 MPH CRUISE         35.8     0.32            33.1
           SEQ#16 HIGHWAY FUEL ECON.     0.67    18.3    580.8    0.49               14.5
           SEQ#16 4 SPD IDLE (NEUT)     62.2     0.00            58.9
           SEQ#16 4 SPD IDLE (2500)     16.4     0.03            31.9
           SEQ#16 4 SPD IDLE (NEUT)      1.3     0.00            69.1
           SEQ#16 4 SPD IDLE (DRIV)      1.6     0.00           174.7
           SEQ#16 FED 2 MODE (30)       59.6     0.01            41.6
           SEQ#16 FED 2 MODE (NEUT)      6.9     0.01            55.6

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   77  CO:  0.22   GAIN:  80

8199  78 OLDS 231 840B2BCB 8BCV

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  320  CO:  6.00   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.     2.18    55.0    475.5    1.84               15.6
           SEQ#11 50 MPH CRUISE          9.5     0.07           622.7
           SEQ#11 HIGHWAY FUEL ECON.     0.27     5.0    370.1    1.86               23.4
           SEQ#11 4 SPD IDLE (NEUT)    298.8     5.30            26.1
           SEQ#11 4 SPD IDLE (2500)     31.2     0.37           112.6
           SEQ#11 4 SPD IDLE (NEUT)    244.3     4.75            36.2
           SEQ#11 4 SPD IDLE (DRIV)    234.9     5.09            51.3
           SEQ#11 FED 2 MODE (30)       59.6     0.24           546.9
           SEQ#11 FED 2 MODE (NEUT)    308.3     5.28            38.3

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:  246  CO:  4.78   GAIN:   0




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                                     LISTING OF TEST RESULTS
                                           HOUSTON #2

                                                          EMISSION RESULTS                 FUEL
VEH.                                          ---------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY       HC       CO       CO2      NOxc     CH4       MPG
----   -- ---- --- -----------------    -----    -----    -----    -----    ----      ----
8199   78 OLDS 231 840B2BCB 8BCV      (CON'T)

            COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT.
                      50 RPM GAIN ACHEIVED DURING STEP 7 OF PROPANE
                      CARBURETOR ADJUSTMENT A-2.  IDLE NEUTRAL 830 RPM,
                      WITH PROPANE 880 RPM.

            SEQ#12 FEDERAL TEST PROC.    1.54     25.0    507.9     1.70               16.1
            SEQ#12 50 MPH CRUISE        13.8      0.03            666.2
            SEQ#12 HIGHWAY FUEL ECON.    0.16      2.4    384.3     1.74               22.8
            SEQ#12 4 SPD IDLE (NEUT)   218.8      0.90             42.3
            SEQ#12 4 SPD IDLE (2500)    20.0      0.10            137.3
            SEQ#12 4 SPD IDLE (NEUT)   192.0      0.75             31.5
            SEQ#12 4 SPD IDLE (DRIV)   156.7      0.85            107.7
            SEQ#12 FED 2 MODE (30)      27.9      0.03            478.2
            SEQ#12 FED 2 MODE (NEUT)   246.3      0.83             41.6

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  192  CO:  0.75   GAIN:  60

            COMMENT : ADJUSTED IDLE MIXTURE & SPEED TO SPEC. ADJUSTED
                      TIMING TO SPEC.

            SEQ#15 FEDERAL TEST PROC.    0.85     15.9    518.2     1.64               16.3
            SEQ#15 50 MPH CRUISE        17.1      0.04            777.4
            SEQ#15 HIGHWAY FUEL ECON.    0.10      1.4    388.6     1.92               22.7
            SEQ#15 4 SPD IDLE (NEUT)    77.7      0.00             66.2
            SEQ#15 4 SPD IDLE (2500)    11.2      0.18            121.3
            SEQ#15 4 SPD IDLE (NEUT)   105.8      0.00             72.1
            SEQ#15 4 SPD IDLE (DRIV)    22.3      0.00            158.0
            SEQ#15 FED 2 MODE (30)      23.6      0.08            461.0
            SEQ#15 FED 2 MODE (NEUT)   188.0      0.00             64.7

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  106  CO:  0.00   GAIN: 210

8200   78 OLDS 305 810Y2BCCH 8BCV

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC: 1659  CO:  7.79   GAIN:  20

            SEQ#11 FEDERAL TEST PROC.    4.36     56.4    493.9     1.56               14.9
            SEQ#11 50 MPH CRUISE        18.1      0.01            298.2
            SEQ#11 HIGHWAY FUEL ECON.    1.27     17.1    410.9     1.25               20.1
            SEQ#11 4 SPD IDLE (NEUT)  1149.1      6.40              5.6
            SEQ#11 4 SPD IDLE (2500)    31.9      0.02             75.3
            SEQ#11 4 SPD IDLE (NEUT)  1004.7      6.93              7.4
            SEQ#11 4 SPD IDLE (DRIV)   957.7      8.00              5.8
            SEQ#11 FED 2 MODE (30)     147.4      0.42            225.8
            SEQ#11 FED 2 MODE (NEUT)  1000.0      6.25             11.5

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8200	78	OLDS	305	810Y2BCCH 8BCV	(CON'T)					

COMMENT : IDLE NEUTRAL 600 RPM, CO .5%, ACHEIVED AT STEP 5C OF IDLE CO CARB ADJUSTMENT PROCEDURE A-2.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	1.01	10.8	547.5	1.71		15.6
SEQ#13 50 MPH CRUISE	19.0	0.01		205.2		
SEQ#13 HIGHWAY FUEL ECON.	0.58	10.5	405.6	1.21		20.9
SEQ#13 4 SPD IDLE (NEUT)	23.6	0.00		32.2		
SEQ#13 4 SPD IDLE (2500)	68.8	1.00		47.1		
SEQ#13 4 SPD IDLE (NEUT)	29.9	0.00		32.7		
SEQ#13 4 SPD IDLE (DRIV)	18.1	0.00		61.1		
SEQ#13 FED 2 MODE (30)	25.0	0.00		126.2		
SEQ#13 FED 2 MODE (NEUT)	60.2	0.00		29.7		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO SPEC. USING PROPANE ENRICHMENT PROCEDURES, ENRICHED RPM 530 IN DRIVE, IDLE RPM 500 IN DRIVE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.10	13.7	558.0	1.72		15.2
SEQ#15 50 MPH CRUISE	12.8	0.01		215.2		
SEQ#15 HIGHWAY FUEL ECON.	0.67	12.1	419.6	1.38		20.1
SEQ#15 4 SPD IDLE (NEUT)	23.3	0.00		25.6		
SEQ#15 4 SPD IDLE (2500)	16.7	0.01		67.4		
SEQ#15 4 SPD IDLE (NEUT)	19.0	0.00		30.7		
SEQ#15 4 SPD IDLE (DRIV)	11.5	0.00		54.4		
SEQ#15 FED 2 MODE (30)	18.1	0.00		127.8		
SEQ#15 FED 2 MODE (NEUT)	50.6	0.00		30.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED AIR, FUEL, OIL, AND CRANKCASE BREATHER FILTERS, SPARK PLUGS, PCV VALVE AND ENGINE OIL. ADJUSTED IDLE SPEED AND MIXTURE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	0.97	6.8	546.4	2.18		15.8
SEQ#16 50 MPH CRUISE	13.1	0.01		234.5		
SEQ#16 HIGHWAY FUEL ECON.	0.39	6.1	423.1	1.54		20.5
SEQ#16 4 SPD IDLE (NEUT)	22.0	0.00		27.8		
SEQ#16 4 SPD IDLE (2500)	16.4	0.04		50.2		
SEQ#16 4 SPD IDLE (NEUT)	20.4	0.00		30.4		
SEQ#16 4 SPD IDLE (DRIV)	10.2	0.00		49.9		
SEQ#16 FED 2 MODE (30)	18.1	0.00		133.1		
SEQ#16 FED 2 MODE (NEUT)	75.7	0.00		28.1		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 50 CO: 0.03 GAIN: 140

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                      EMISSION RESULTS                   FUEL
VEH.                                         --------- GRAMS / MILE ----------           ECON
 NO.   YR MAKE CID    ENGINE FAMILY            HC     CO      CO2     NOxc    CH4     MPG
----   -- ---- --- ----------------          -----  -----  ------   -----   ----    ----
8202   78 OLDS 305 810L4BFCH 8BFV

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: F
            HC:  430   CO:  3.70   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.   4.64    65.5    443.2    1.58            15.8
            SEQ#11 50 MPH CRUISE      122.1     0.49            389.2
            SEQ#11 HIGHWAY FUEL ECON.   1.94    23.7    338.8    1.53            23.2
            SEQ#11 4 SPD IDLE (NEUT)  672.2     3.60             19.9
            SEQ#11 4 SPD IDLE (2500)   97.6     1.16            161.4
            SEQ#11 4 SPD IDLE (NEUT)  791.6     4.68             23.5
            SEQ#11 4 SPD IDLE (DRIV)  711.0     5.43             25.0
            SEQ#11 FED 2 MODE (30)    242.3     1.53            795.6
            SEQ#11 FED 2 MODE (NEUT)  701.9     4.17             29.9

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: F
            HC:  803   CO:  4.64   GAIN:   0

            COMMENT : PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.   2.55    40.7    476.1    1.55            16.2
            SEQ#12 50 MPH CRUISE       52.3     0.07            369.0
            SEQ#12 HIGHWAY FUEL ECON.   1.13    12.8    352.8    1.58            23.6
            SEQ#12 4 SPD IDLE (NEUT)   22.3     0.00             64.9
            SEQ#12 4 SPD IDLE (2500)   87.3     1.48            138.8
            SEQ#12 4 SPD IDLE (NEUT)   41.4     0.00             60.5
            SEQ#12 4 SPD IDLE (DRIV)   14.4     0.00            103.6
            SEQ#12 FED 2 MODE (30)    163.3     0.47            939.3
            SEQ#12 FED 2 MODE (NEUT)  107.5     0.00             57.5

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: F
            HC:   43   CO:  0.00   GAIN:  80

            COMMENT : ADJUSTED IDLE SPEED & MIXTURE.

            SEQ#13 FEDERAL TEST PROC.   2.68    40.7    482.4    1.55            16.0
            SEQ#13 50 MPH CRUISE      116.8     0.41            366.0
            SEQ#13 HIGHWAY FUEL ECON.   1.02    11.0    367.0    1.68            22.9
            SEQ#13 4 SPD IDLE (NEUT)   21.3     0.00             51.1
            SEQ#13 4 SPD IDLE (2500)   76.1     1.40            171.4
            SEQ#13 4 SPD IDLE (NEUT)   39.8     0.00             52.3
            SEQ#13 4 SPD IDLE (DRIV)   12.8     0.00             89.8
            SEQ#13 FED 2 MODE (30)    172.0     0.90            861.7
            SEQ#13 FED 2 MODE (NEUT)   68.8     0.00             50.9

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: F
            HC:   39   CO:  0.00   GAIN: 110
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                      AUTOMOTIVE TESTING LABORATORIES,INC.

                            TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2
                                                    EMISSION RESULTS               FUEL
VEH.                                       --------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC     CO      CO2     NOxc    CH4     MPG
----   -- ---- ---  -----------------      -----  -----   ------   -----   ----    ----
8202   78 OLDS 305 810L4BFCH 8BFV     (CON'T)

         COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

         SEQ#15 FEDERAL TEST PROC.      3.14    42.1    473.7    1.64            16.1
         SEQ#15 50 MPH CRUISE          106.2    0.37            473.1
         SEQ#15 HIGHWAY FUEL ECON.      1.20    13.2    341.7    1.86            24.2
         SEQ#15 4 SPD IDLE (NEUT)       19.7    0.00            61.0
         SEQ#15 4 SPD IDLE (2500)       84.7    1.75            130.6
         SEQ#15 4 SPD IDLE (NEUT)       38.1    0.01             42.4
         SEQ#15 4 SPD IDLE (DRIV)        5.3    0.01             53.9
         SEQ#15 FED 2 MODE (30)        159.0    0.68            831.6
         SEQ#15 FED 2 MODE (NEUT)       75.7    0.00             58.1

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: F
         HC:   29  CO:  0.01   GAIN:  50

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                   OIL, CARBON CANISTER & CRANKCASE BREATHER FILTERS,
                   ENGINE OIL, PCV VALVE.  ADJUSTED IDLE SPEED &
                   MIXTURE & FAST IDLE TO SPEC.

         SEQ#16 FEDERAL TEST PROC.      1.89    33.9    493.2    1.62            16.1
         SEQ#16 50 MPH CRUISE           22.7    0.01            568.1
         SEQ#16 HIGHWAY FUEL ECON.      0.39     5.4    397.3    2.38            21.8
         SEQ#16 4 SPD IDLE (NEUT)       22.3    0.00             85.5
         SEQ#16 4 SPD IDLE (2500)       63.8    1.04            145.5
         SEQ#16 4 SPD IDLE (NEUT)       66.5    0.00             86.2
         SEQ#16 4 SPD IDLE (DRIV)       38.1    0.00            203.2
         SEQ#16 FED 2 MODE (30)        102.9    0.22            498.4
         SEQ#16 FED 2 MODE (NEUT)      115.5    0.00             76.1

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: F
         HC:   66  CO:  0.00   GAIN: 120

         COMMENT : REPLACED CATALYST.

         SEQ#17 FEDERAL TEST PROC.      0.83    22.3    516.8    1.15            16.0
         SEQ#17 50 MPH CRUISE            0.3    0.00            354.8
         SEQ#17 HIGHWAY FUEL ECON.      0.06     4.4    383.4    1.19            22.7
         SEQ#17 4 SPD IDLE (NEUT)        0.0    0.00             93.4
         SEQ#17 4 SPD IDLE (2500)        0.0    0.00             83.6
         SEQ#17 4 SPD IDLE (NEUT)        0.0    0.00            124.4
         SEQ#17 4 SPD IDLE (DRIV)        0.0    0.00            421.6
         SEQ#17 FED 2 MODE (30)          0.0    0.02            648.8
         SEQ#17 FED 2 MODE (NEUT)        7.5    0.00            113.6

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: F
         HC:    0  CO:  0.00   GAIN: 110



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8205	78	PLYM	225	FD-225-2-CAE-1						
				PRELIMINARY LANE TEST: CAT: P FUEL: P HC: 470 CO: 8.20 GAIN: 0						
				SEQ#11 FEDERAL TEST PROC.	4.46	54.2	485.4	4.59		15.2
				SEQ#11 50 MPH CRUISE	55.3	0.01		2711.8		
				SEQ#11 HIGHWAY FUEL ECON.	0.65	5.2	380.7	5.53		22.7
				SEQ#11 4 SPD IDLE (NEUT)	713.3	6.55		62.0		
				SEQ#11 4 SPD IDLE (2500)	165.3	1.14		849.2		
				SEQ#11 4 SPD IDLE (NEUT)	649.5	6.74		61.0		
				SEQ#11 4 SPD IDLE (DRIV)	708.7	6.79		70.0		
				SEQ#11 FED 2 MODE (30)	266.5	0.62		2711.8		
				SEQ#11 FED 2 MODE (NEUT)	859.1	6.50		69.0		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 643 CO: 6.67 GAIN: 0						
				COMMENT : PROPANE GAIN 50 RPM.						
				SEQ#12 FEDERAL TEST PROC.	2.62	15.3	484.4	4.80		17.2
				SEQ#12 50 MPH CRUISE	33.2	0.01		2613.1		
				SEQ#12 HIGHWAY FUEL ECON.	0.34	1.5	377.4	6.87		23.3
				SEQ#12 4 SPD IDLE (NEUT)	564.0	0.07		80.5		
				SEQ#12 4 SPD IDLE (2500)	73.8	0.07		704.6		
				SEQ#12 4 SPD IDLE (NEUT)	624.6	0.08		74.8		
				SEQ#12 4 SPD IDLE (DRIV)	736.2	0.09		146.0		
				SEQ#12 FED 2 MODE (30)	89.3	0.04		2642.7		
				SEQ#12 FED 2 MODE (NEUT)	570.7	0.06		92.9		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 620 CO: 0.08 GAIN: 40						
				COMMENT : ADJUSTED IDLE CO TO .5%.						
				SEQ#13 FEDERAL TEST PROC.	3.25	24.8	477.9	5.00		16.8
				SEQ#13 50 MPH CRUISE	26.9	0.01		2721.6		
				SEQ#13 HIGHWAY FUEL ECON.	0.38	2.0	380.0	6.64		23.1
				SEQ#13 4 SPD IDLE (NEUT)	819.5	0.95		60.0		
				SEQ#13 4 SPD IDLE (2500)	77.4	0.29		690.5		
				SEQ#13 4 SPD IDLE (NEUT)	884.9	1.93		61.6		
				SEQ#13 4 SPD IDLE (DRIV)	981.9	1.70		79.0		
				SEQ#13 FED 2 MODE (30)	226.8	0.17		2751.2		
				SEQ#13 FED 2 MODE (NEUT)	1024.9	1.23		69.5		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 897 CO: 1.92 GAIN: 20						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                EMISSION RESULTS                     FUEL
                                      ---------- GRAMS / MILE -----------            ECON
VEH.
 NO.  YR MAKE CID   ENGINE FAMILY       HC      CO      CO2    NOxc    CH4           MPG
----  -- ---- ---  --------------     -----   -----   -----   -----   ----          ----
8205  78 PLYM 225 FD-225-2-CAE-1    (CON'T)

        COMMENT : ADJUSTED TIMING, IDLE SPEED & MIXTURE TO SPEC.

        SEQ#15 FEDERAL TEST PROC.     1.32    10.2    502.5   5.76                   17.0
        SEQ#15 50 MPH CRUISE         13.8     0.01          3254.1
        SEQ#15 HIGHWAY FUEL ECON.     0.18     1.0    406.0   8.34                   21.7
        SEQ#15 4 SPD IDLE (NEUT)     50.6     0.00           101.3
        SEQ#15 4 SPD IDLE (2500)     22.0     0.04           714.7
        SEQ#15 4 SPD IDLE (NEUT)     74.4     0.00            97.7
        SEQ#15 4 SPD IDLE (DRIV)     56.3     0.00           240.6
        SEQ#15 FED 2 MODE (30)       93.6     0.05          3017.5
        SEQ#15 FED 2 MODE (NEUT)    127.4     0.00           114.2

        FOLLOW UP LANE TEST:
        CAT: P     FUEL: P
        HC:   76   CO:  0.00   GAIN: 130

        COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                  CARBON CANISTER & OIL FILTERS, ENGINE OIL, PCV
                  VALVE, IGNITION COIL, UNPLUGGED EGR LINE.
                  ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

        SEQ#16 FEDERAL TEST PROC.     1.29     9.3    534.0   2.43                   16.1
        SEQ#16 50 MPH CRUISE         17.4     0.00           591.4
        SEQ#16 HIGHWAY FUEL ECON.     0.16     0.6    399.7   2.28                   22.1
        SEQ#16 4 SPD IDLE (NEUT)     42.1     0.00           109.5
        SEQ#16 4 SPD IDLE (2500)     35.5     0.00           231.1
        SEQ#16 4 SPD IDLE (NEUT)     25.0     0.00           107.5
        SEQ#16 4 SPD IDLE (DRIV)     22.0     0.00           310.4
        SEQ#16 FED 2 MODE (30)       43.1     0.01          1513.0
        SEQ#16 FED 2 MODE (NEUT)     68.5     0.00           113.6

        FOLLOW UP LANE TEST:
        CAT: P     FUEL: P
        HC:   26   CO:  0.00   GAIN: 180

8206  78 PLYM 318 FD-318-2-CAE-7

        PRELIMINARY LANE TEST:
        CAT: P     FUEL: F
        HC:  427   CO:  0.10   GAIN: 150

        SEQ#11 FEDERAL TEST PROC.     2.94    16.1    630.7   2.41                   13.3
        SEQ#11 50 MPH CRUISE         18.7     0.13           337.6
        SEQ#11 HIGHWAY FUEL ECON.     1.51     3.9    421.2   2.79                   20.5
        SEQ#11 4 SPD IDLE (NEUT)    551.2     0.12            55.4
        SEQ#11 4 SPD IDLE (2500)     17.4     0.11           123.1
        SEQ#11 4 SPD IDLE (NEUT)    414.8     0.07            58.1
        SEQ#11 4 SPD IDLE (DRIV)    217.8     0.06           114.4
        SEQ#11 FED 2 MODE (30)       86.3     0.08           765.3
        SEQ#11 FED 2 MODE (NEUT)    483.9     0.10            54.7

        NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                  FUEL
VEH.                                        --------- GRAMS / MILE -----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY            HC      CO      CO2      NOxc    CH4        MPG
---- -- ---- --- -----------------         -----   -----   ------    -----   ----       ----
8206  78 PLYM 318 FD-318-2-CAE-7    (CON'T)

          COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.     2.53    13.0    639.2     3.93                 13.3
          SEQ#15 50 MPH CRUISE         11.8     0.05            372.0
          SEQ#15 HIGHWAY FUEL ECON.     1.48     2.5    415.7     5.68                 20.9
          SEQ#15 4 SPD IDLE (NEUT)    171.0     0.05             25.0
          SEQ#15 4 SPD IDLE (2500)      8.9     0.04             91.1
          SEQ#15 4 SPD IDLE (NEUT)     68.5     0.03             30.1
          SEQ#15 4 SPD IDLE (DRIV)     73.4     0.03             67.5
          SEQ#15 FED 2 MODE (30)       39.8     0.04            329.6
          SEQ#15 FED 2 MODE (NEUT)     85.7     0.04             30.9

          NO FOLLOW UP LANE TEST DONE


          COMMENT : MAJOR TUNE-UP.REPLACED CARBURETOR,SPARK PLUGS,
                    ENGINE OIL AND FILTER,FUEL FILTER,PCV VALVE,
                    CARBON CANISTER FILTER,AIR FILTER,ADJUSTED IDLE
                    SPEED AND MIXTURE,ADJUSTED TIMING TO SPEC.

          SEQ#16 FEDERAL TEST PROC.     3.00    26.4    618.1     2.15                 13.3
          SEQ#16 50 MPH CRUISE         43.4     0.36            299.2
          SEQ#16 HIGHWAY FUEL ECON.     1.95    11.6    413.9     2.57                 20.2
          SEQ#16 4 SPD IDLE (NEUT)    205.7     0.11             58.1
          SEQ#16 4 SPD IDLE (2500)      9.5     0.19            106.7
          SEQ#16 4 SPD IDLE (NEUT)    100.2     0.07             70.6
          SEQ#16 4 SPD IDLE (DRIV)    151.7     0.05            227.8
          SEQ#16 FED 2 MODE (30)      120.1     0.35            884.6
          SEQ#16 FED 2 MODE (NEUT)    156.7     0.11             68.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  140  CO:  0.14   GAIN: 110

          COMMENT : REPLACED CATALYST.

          SEQ#17 FEDERAL TEST PROC.     1.16    18.3    606.9     0.92                 13.9
          SEQ#17 50 MPH CRUISE          3.6     0.03            182.1
          SEQ#17 HIGHWAY FUEL ECON.     0.40     5.3    413.8     1.13                 21.0
          SEQ#17 4 SPD IDLE (NEUT)     37.8     0.01             58.0
          SEQ#17 4 SPD IDLE (2500)      0.0     0.07             70.0
          SEQ#17 4 SPD IDLE (NEUT)     23.3     0.01             73.2
          SEQ#17 4 SPD IDLE (DRIV)     40.1     0.01            232.2
          SEQ#17 FED 2 MODE (30)       36.2     0.10            611.6
          SEQ#17 FED 2 MODE (NEUT)     56.3     0.01             65.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: F
          HC:   25  CO:  0.06   GAIN:  60
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                 EMISSION RESULTS               FUEL
VEH.                                   ----------- GRAMS / MILE ------------    ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2    NOxc    CH4     MPG
----  -- ---- --- ------------------    ----   -----   ------   -----   ----    ----
8208  78 PONT 231 840B2BCB 8BCV

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  362  CO:  4.62   GAIN:  15

           SEQ#11 FEDERAL TEST PROC.    2.28    34.3    439.6    1.55            17.7
           SEQ#11 50 MPH CRUISE         14.4    0.01            715.7
           SEQ#11 HIGHWAY FUEL ECON.    0.23     2.2    331.1    2.23            26.5
           SEQ#11 4 SPD IDLE (NEUT)    394.8    4.17             41.4
           SEQ#11 4 SPD IDLE (2500)     28.3    0.02            175.7
           SEQ#11 4 SPD IDLE (NEUT)    333.0    3.80             47.3
           SEQ#11 4 SPD IDLE (DRIV)    335.2    4.05            138.8
           SEQ#11 FED 2 MODE (30)       36.2    0.01            370.0
           SEQ#11 FED 2 MODE (NEUT)    374.9    4.33             53.7

           NO FOLLOW UP LANE TEST DONE


           COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .5%, HC 350 PPM.

           SEQ#13 FEDERAL TEST PROC.    0.71     6.9    456.0    1.91            18.9
           SEQ#13 50 MPH CRUISE         10.8    0.01            803.7
           SEQ#13 HIGHWAY FUEL ECON.    0.08     0.6    343.0    2.76            25.8
           SEQ#13 4 SPD IDLE (NEUT)     10.5    0.00             73.7
           SEQ#13 4 SPD IDLE (2500)      4.6    0.00            190.9
           SEQ#13 4 SPD IDLE (NEUT)     13.5    0.00             81.0
           SEQ#13 4 SPD IDLE (DRIV)      5.3    0.01            398.3
           SEQ#13 FED 2 MODE (30)       16.1    0.00            346.7
           SEQ#13 FED 2 MODE (NEUT)     32.9    0.00             83.8

           NO FOLLOW UP LANE TEST DONE


           COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .11%, HC 200 PPM,
                     PROPANE GAIN 150 RPM.

           SEQ#15 FEDERAL TEST PROC.    0.85     9.3    466.3    1.82            18.4
           SEQ#15 50 MPH CRUISE          8.2    0.01            894.7
           SEQ#15 HIGHWAY FUEL ECON.    0.10     0.7    340.9    2.54            25.9
           SEQ#15 4 SPD IDLE (NEUT)     62.5    0.17             27.2
           SEQ#15 4 SPD IDLE (2500)      6.2    0.02            185.0
           SEQ#15 4 SPD IDLE (NEUT)     12.1    0.01             93.8
           SEQ#15 4 SPD IDLE (DRIV)      3.6    0.02            477.2
           SEQ#15 FED 2 MODE (30)       17.4    0.01            444.8
           SEQ#15 FED 2 MODE (NEUT)     20.0    0.01            102.4

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   84  CO:  0.37   GAIN:  60
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                 EMISSION RESULTS                  FUEL
VEH.                                    ---------- GRAMS / MILE -----------        ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2    NOxc   CH4        MPG
----  -- ---- --- -----------------      -----   -----   ------  -----  ----       ----
8208  78 PONT 231 840B2BCB 8BCV     (CON'T)

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, FUEL, OIL,
                    PCV, PURGE CANISTER FILTERS.  AIR FILTER ELEMENT,
                    ENGINE OIL, PCV VALVE, SET TIMING TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    1.19    14.1   457.4    1.73              18.4
          SEQ#16 50 MPH CRUISE         11.5    0.01           830.0
          SEQ#16 HIGHWAY FUEL ECON.    0.14     1.4   346.1    2.25              25.4
          SEQ#16 4 SPD IDLE (NEUT)    101.2    0.21            29.8
          SEQ#16 4 SPD IDLE (2500)      8.5    0.02           163.9
          SEQ#16 4 SPD IDLE (NEUT)     14.8    0.00            82.2
          SEQ#16 4 SPD IDLE (DRIV)      2.6    0.01           308.3
          SEQ#16 FED 2 MODE (30)       15.1    0.01           388.2
          SEQ#16 FED 2 MODE (NEUT)     10.8    0.01            35.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  155  CO:  1.29   GAIN:  60

8209  78 PONT 231 840B2BCB 8BCV

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  536  CO:  5.30   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    3.24    34.3   416.9    5.05              18.4
          SEQ#11 50 MPH CRUISE          2.3    0.02          3056.9
          SEQ#11 HIGHWAY FUEL ECON.    0.36     1.8   350.4    7.66              25.0
          SEQ#11 4 SPD IDLE (NEUT)    499.6    5.27            45.3
          SEQ#11 4 SPD IDLE (2500)     22.7    0.07           441.8
          SEQ#11 4 SPD IDLE (NEUT)    463.8    4.85            42.1
          SEQ#11 4 SPD IDLE (DRIV)    383.8    5.62            54.4
          SEQ#11 FED 2 MODE (30)       96.6    0.22          2277.9
          SEQ#11 FED 2 MODE (NEUT)    542.2    4.95            49.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE SPEED NEUTRAL 860,DRIVE 600,PROPANE GAIN
                    60RPM.

          SEQ#12 FEDERAL TEST PROC.    1.03    10.9   469.2    5.30              18.1
          SEQ#12 50 MPH CRUISE          3.3    0.01          2672.3
          SEQ#12 HIGHWAY FUEL ECON.    0.15     0.4   357.4    8.02              24.8
          SEQ#12 4 SPD IDLE (NEUT)      0.7    0.01            90.9
          SEQ#12 4 SPD IDLE (2500)      0.0    0.01           463.0
          SEQ#12 4 SPD IDLE (NEUT)      0.0    0.01            98.3
          SEQ#12 4 SPD IDLE (DRIV)      0.0    0.01           410.4
          SEQ#12 FED 2 MODE (30)       15.1    0.02          2121.7
          SEQ#12 FED 2 MODE (NEUT)     15.8    0.01           105.7

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                              TEXAS PILOT I/M STUDY


                            LISTING OF TEST RESULTS
                                  HOUSTON #2

                                                        EMISSION RESULTS                      FUEL
VEH.                                          --------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID     ENGINE FAMILY            HC      CO      CO2     NOxc     CH4          MPG
----   -- ---- --- ----------------------     -----   -----   -----   -----    ----          ----
8209   78 PONT 231 840B2BCB 8BCV    (CON'T)

            COMMENT : IDLE SPEED NEUTRAL 850,DRIVE 600,IDLE CO .45%.

            SEQ#13 FEDERAL TEST PROC.     1.04    10.0    472.9    5.39                    18.0
            SEQ#13 50 MPH CRUISE          12.5    0.01           2751.2
            SEQ#13 HIGHWAY FUEL ECON.     0.14     0.3    354.0    8.18                    25.0
            SEQ#13 4 SPD IDLE (NEUT)      14.1    0.00             93.4
            SEQ#13 4 SPD IDLE (2500)       0.0    0.01            444.8
            SEQ#13 4 SPD IDLE (NEUT)      18.7    0.00             92.9
            SEQ#13 4 SPD IDLE (DRIV)       6.2    0.00            337.6
            SEQ#13 FED 2 MODE (30)        21.3    0.02           1916.3
            SEQ#13 FED 2 MODE (NEUT)      55.6    0.00            100.3
            NO FOLLOW UP LANE TEST DONE

            COMMENT : IDLE DRIVE 600RPMS,CO .05%,HC 90PPM,PROPANE GAIN,
                      DRIVE 30RPM,NEUTRAL 120RPM.

            SEQ#15 FEDERAL TEST PROC.     1.08     8.4    471.3    6.22                    18.2
            SEQ#15 50 MPH CRUISE          11.8    0.02           2504.7
            SEQ#15 HIGHWAY FUEL ECON.     0.14     0.3    364.7    8.81                    24.3
            SEQ#15 4 SPD IDLE (NEUT)      13.1    0.01            101.8
            SEQ#15 4 SPD IDLE (2500)       0.0    0.01            459.0
            SEQ#15 4 SPD IDLE (NEUT)      13.5    0.01             95.9
            SEQ#15 4 SPD IDLE (DRIV)       2.6    0.01            339.7
            SEQ#15 FED 2 MODE (30)        17.7    0.02           1718.4
            SEQ#15 FED 2 MODE (NEUT)      59.9    0.00            114.2
            NO FOLLOW UP LANE TEST DONE

            COMMENT : REPLACED SPARK PLUGS,PCV,FUEL AND OIL FILTERS,OIL,
                      AIR CLEANER ELEMENT,REMOVED STEEL BALL FROM EGR
                      LINE.SET TO MANUFACTOR SPEC.

            SEQ#16 FEDERAL TEST PROC.     1.64    10.9    511.2    1.46                    16.6
            SEQ#16 50 MPH CRUISE          15.8    0.00            666.2
            SEQ#16 HIGHWAY FUEL ECON.     0.13     0.3    370.6    2.13                    23.9
            SEQ#16 4 SPD IDLE (NEUT)      12.1    0.01             83.6
            SEQ#16 4 SPD IDLE (2500)      16.4    0.03            170.3
            SEQ#16 4 SPD IDLE (NEUT)      12.8    0.01             84.0
            SEQ#16 4 SPD IDLE (DRIV)      11.5    0.01            373.0
            SEQ#16 FED 2 MODE (30)        25.0    0.01            562.1
            SEQ#16 FED 2 MODE (NEUT)      36.2    0.00             91.0
            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC: 2322  CO: 12.44   GAIN:    0




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS              FUEL
                                          ---------- GRAMS / MILE -----------        ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY           HC     CO      CO2     NOxc    CH4     MPG
----  -- ---- --- ------------------      -----  -----  ------   -----   ----    ----
8216  78 TOYO 134 20R(F) / EV-R

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:    8  CO:  0.52   GAIN:    0

           SEQ#11 FEDERAL TEST PROC.     0.51   16.3   459.5    1.85             18.2
           SEQ#11 50 MPH CRUISE         26.9    0.17           358.9
           SEQ#11 HIGHWAY FUEL ECON.     0.17    4.0   370.6    1.93             23.5
           SEQ#11 4 SPD IDLE (NEUT)     28.6    0.59            16.9
           SEQ#11 4 SPD IDLE (2500)      8.9    0.21            51.5
           SEQ#11 4 SPD IDLE (NEUT)     19.7    0.55            17.7
           SEQ#11 4 SPD IDLE (DRIV)     51.3    1.32            26.8
           SEQ#11 FED 2 MODE (30)       16.7    0.33           297.2
           SEQ#11 FED 2 MODE (NEUT)     19.4    0.57            20.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE SPEED 850 RPMS, PROPANE GAIN 50 RPMS.

           SEQ#12 FEDERAL TEST PROC.     0.63   13.3   450.3    1.95             18.8
           SEQ#12 50 MPH CRUISE          5.6    0.11           262.8
           SEQ#12 HIGHWAY FUEL ECON.     0.15    3.8   367.6    1.91             23.7
           SEQ#12 4 SPD IDLE (NEUT)     38.8    0.05            22.5
           SEQ#12 4 SPD IDLE (2500)     16.7    0.15            39.9
           SEQ#12 4 SPD IDLE (NEUT)     37.5    0.06            23.6
           SEQ#12 4 SPD IDLE (DRIV)     64.5    0.05           110.3
           SEQ#12 FED 2 MODE (30)       19.7    0.26           227.6
           SEQ#12 FED 2 MODE (NEUT)     27.9    0.06            26.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE SPEED 850 RPMS IN NEUTRAL, IDLE MIXTURE
                     ADJUSTED PER EMISSION STICKER, 920 TO 850 RPMS
                     LEAN DROP.

           SEQ#15 FEDERAL TEST PROC.     0.67   14.4   443.9    1.88             18.9
           SEQ#15 50 MPH CRUISE          4.6    0.14           285.1
           SEQ#15 HIGHWAY FUEL ECON.     0.15    4.1   351.0    1.79             24.8
           SEQ#15 4 SPD IDLE (NEUT)     20.4    0.08            23.4
           SEQ#15 4 SPD IDLE (2500)      6.6    0.14            40.5
           SEQ#15 4 SPD IDLE (NEUT)     18.4    0.10            23.5
           SEQ#15 4 SPD IDLE (DRIV)     44.1    0.15           104.4
           SEQ#15 FED 2 MODE (30)       12.8    0.28           220.9
           SEQ#15 FED 2 MODE (NEUT)     15.1    0.11            22.2

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   29  CO:  0.19   GAIN:    0
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                       LISTING OF TEST RESULTS
                              HOUSTON #2

                                              EMISSION RESULTS            FUEL
VEH.                                  --------- GRAMS / MILE ----------   ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC      CO  CO2      NOxc   CH4   MPG
----  -- ---- ---  -------------------  -----  -----  -------  ------  -----  ----
8216  78 TOYO 134 20R(F) / EV-R    (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL
                     AND OIL FILTERS.  CHANGED CRANKCASE OIL.
                     ADJUSTED IDLE SPEED AND MIXTURE, IGNITION AND
                     TIMING.

           SEQ#16 FEDERAL TEST PROC.    0.60   14.1   456.8   1.83              18.5
           SEQ#16 50 MPH CRUISE          5.6   0.08          150.1
           SEQ#16 HIGHWAY FUEL ECON.    0.13    4.0   367.4   1.70              23.7
           SEQ#16 4 SPD IDLE (NEUT)     14.8   0.05           20.5
           SEQ#16 4 SPD IDLE (2500)      6.6   0.07           16.9
           SEQ#16 4 SPD IDLE (NEUT)     14.4   0.06           19.8
           SEQ#16 4 SPD IDLE (DRIV)     29.6   0.08           72.8
           SEQ#16 FED 2 MODE (30)        9.5   0.16          125.4
           SEQ#16 FED 2 MODE (NEUT)     13.1   0.06           21.7

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:    0  CO:  0.23   GAIN:   0

8217  78 DATS 085 A140F/EVPCARB2

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:   34  CO:  1.18   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.    1.29   11.0   322.5   3.35              25.8
           SEQ#11 50 MPH CRUISE         74.7   0.04         1092.1
           SEQ#11 HIGHWAY FUEL ECON.    0.91    2.1   224.6   5.04              38.5
           SEQ#11 4 SPD IDLE (NEUT)     27.3   0.30           27.3
           SEQ#11 4 SPD IDLE (2500)     14.1   0.17           68.4
           SEQ#11 4 SPD IDLE (NEUT)     25.6   0.32           22.9
           SEQ#11 FED 2 MODE (30)       56.3   0.04          474.1
           SEQ#11 FED 2 MODE (NEUT)     28.3   0.36           26.2

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE SPEED,NEUTRAL 700 RPM,PROPANE GAIN
                     50 RPM.

           SEQ#12 FEDERAL TEST PROC.    1.48    6.2   307.1   3.25              27.6
           SEQ#12 50 MPH CRUISE         56.3   0.03          929.0
           SEQ#12 HIGHWAY FUEL ECON.    0.88    1.4   225.3   4.92              38.5
           SEQ#12 4 SPD IDLE (NEUT)     90.6   0.05           19.0
           SEQ#12 4 SPD IDLE (2500)     21.0   0.08           89.0
           SEQ#12 4 SPD IDLE (NEUT)     82.7   0.05           19.2
           SEQ#12 FED 2 MODE (30)       46.0   0.04          409.4
           SEQ#12 FED 2 MODE (NEUT)     80.4   0.05           23.8

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:  103  CO:  0.09   GAIN:   0


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                              LISTING OF TEST RESULTS
                                    HOUSTON #2
                                                  EMISSION RESULTS                FUEL
VEH.                                    --------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID   ENGINE FAMILY       HC      CO      CO2     NOxc     CH4    MPG
----   -- ---- --- -----------------   -----   -----   -----   -----    ----    ----
8217   78 DATS 085 A140F/EVPCARB2    (CON'T)

          COMMENT : IDLE RPM 700 NEUTRAL,LEAN DROP 740 TO 700 RPM IN
                    NEUTRAL.

          SEQ#15 FEDERAL TEST PROC.    1.48     9.0    311.6    3.31            26.9
          SEQ#15 50 MPH CRUISE       102.5     0.07           1633.2
          SEQ#15 HIGHWAY FUEL ECON.    0.88     1.8    236.0    5.11            36.7
          SEQ#15 4 SPD IDLE (NEUT)   105.8     0.24             36.1
          SEQ#15 4 SPD IDLE (2500)    28.6     0.18            155.0
          SEQ#15 4 SPD IDLE (NEUT)   106.5     0.24             37.3
          SEQ#15 FED 2 MODE (30)      90.0     0.08            687.4
          SEQ#15 FED 2 MODE (NEUT)    99.9     0.23             41.5

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,OIL AND OIL
                    FILTER,FUEL AND AIR FILTER,PCV VALVE AND
                    FILTER,SET TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    1.35     6.5    311.6    3.06            27.2
          SEQ#16 50 MPH CRUISE        90.9     0.06           1518.0
          SEQ#16 HIGHWAY FUEL ECON.    0.80     1.2    229.6    4.61            37.9
          SEQ#16 4 SPD IDLE (NEUT)   151.0     0.26             39.7
          SEQ#16 4 SPD IDLE (2500)    26.6     0.13            127.5
          SEQ#16 4 SPD IDLE (NEUT)   158.3     0.20             44.1
          SEQ#16 FED 2 MODE (30)      72.4     0.07            591.4
          SEQ#16 FED 2 MODE (NEUT)   134.7     0.23             40.7

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  170  CO:  1.09   GAIN:   0

8219   78 DATS 146 L240/280F

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  481  CO:  2.71   GAIN:  23

          SEQ#11 FEDERAL TEST PROC.    8.44    84.6    362.0    1.14            17.0
          SEQ#11 50 MPH CRUISE       134.4     2.73            674.3
          SEQ#11 HIGHWAY FUEL ECON.    3.19    57.0    279.8    1.61            23.4
          SEQ#11 4 SPD IDLE (NEUT)   206.4     2.13             50.1
          SEQ#11 4 SPD IDLE (2500)    75.1     2.49            134.2
          SEQ#11 4 SPD IDLE (NEUT)   217.1     2.27             51.1
          SEQ#11 FED 2 MODE (30)     130.7     2.94            167.8
          SEQ#11 FED 2 MODE (NEUT)   229.9     2.16             49.6

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                      FUEL
VEH.                                       --------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC       CO       CO2      NOxc     CH4       MPG
----   -- ---- --- -----------------       -----    -----    ------   -----     ----      ----
8219   78 DATS 146 L240/280F    (CON'T)

          COMMENT : IDLE NEUTRAL 700 RPM, IDLE CO .2%.

          SEQ#13 FEDERAL TEST PROC.          6.55     60.6     399.0     1.39               17.2
          SEQ#13 50 MPH CRUISE             142.4      1.89             859.2
          SEQ#13 HIGHWAY FUEL ECON.          2.77     45.7     285.1     1.68               24.3
          SEQ#13 4 SPD IDLE (NEUT)         119.4      0.27              67.1
          SEQ#13 4 SPD IDLE (2500)          57.6      1.82             172.4
          SEQ#13 4 SPD IDLE (NEUT)         121.1      0.29              70.4
          SEQ#13 FED 2 MODE (30)           116.1      2.22             278.0
          SEQ#13 FED 2 MODE (NEUT)         144.7      0.32              67.9

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.          6.39     50.9     403.7     1.49               17.6
          SEQ#15 50 MPH CRUISE             144.0      1.63            1054.6
          SEQ#15 HIGHWAY FUEL ECON.          2.89     39.1     311.2     2.17               23.2
          SEQ#15 4 SPD IDLE (NEUT)         271.7      0.14              65.7
          SEQ#15 4 SPD IDLE (2500)          81.5      0.81             195.2
          SEQ#15 4 SPD IDLE (NEUT)         168.4      0.13              64.6
          SEQ#15 FED 2 MODE (30)           134.7      1.64             327.5
          SEQ#15 FED 2 MODE (NEUT)         175.3      0.15              63.6

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED OIL & OIL FILTER, SPARK
                    PLUGS, AIR FILTER, PCV FILTER, ADJUSTED IDLE
                    NEUTRAL TO 700 RPM, CO .155.

          SEQ#16 FEDERAL TEST PROC.          6.42     53.7     405.8     1.47               17.4
          SEQ#16 50 MPH CRUISE             137.4      1.95             951.9
          SEQ#16 HIGHWAY FUEL ECON.          2.77     41.4     306.3     2.36               23.3
          SEQ#16 4 SPD IDLE (NEUT)         151.4      0.12              60.5
          SEQ#16 4 SPD IDLE (2500)          45.0      1.22             194.7
          SEQ#16 4 SPD IDLE (NEUT)         128.1      0.11              61.8
          SEQ#16 FED 2 MODE (30)           119.8      2.30             262.8
          SEQ#16 FED 2 MODE (NEUT)         151.0      0.12              61.1

          FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
          HC:  256  CO:  0.37   GAIN:  74
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                        LISTING OF TEST RESULTS
                              HOUSTON #2
                                                 EMISSION RESULTS               FUEL
                                       --------- GRAMS / MILE ----------       ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO     CO2     NOxc    CH4     MPG
----  -- ---- --- -----------------    -----   -----  ------   -----   ----    ----
8222  78 VOLK 089 37F / 37

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  109  CO:  1.42   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     3.56    10.3   341.1    2.77            24.1
          SEQ#11 50 MPH CRUISE        131.7     0.31          854.2
          SEQ#11 HIGHWAY FUEL ECON.     2.78    10.1   233.9    3.32            34.3
          SEQ#11 4 SPD IDLE (NEUT)     69.8     1.32           39.1
          SEQ#11 4 SPD IDLE (2500)    112.1     3.23           51.1
          SEQ#11 4 SPD IDLE (NEUT)     77.7     0.85           39.3
          SEQ#11 FED 2 MODE (30)      198.1     1.44          607.6
          SEQ#11 FED 2 MODE (NEUT)     97.9     0.48           42.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE RPM 925,PROPANE GAIN 75 RPM.

          SEQ#12 FEDERAL TEST PROC.     2.60    10.0   352.3    2.73            23.6
          SEQ#12 50 MPH CRUISE        102.9     0.38          848.2
          SEQ#12 HIGHWAY FUEL ECON.     2.42    12.1   222.3    2.97            35.6
          SEQ#12 4 SPD IDLE (NEUT)     35.5     1.33           51.8
          SEQ#12 4 SPD IDLE (2500)     80.4     1.26           60.3
          SEQ#12 4 SPD IDLE (NEUT)     44.1     0.98           52.0
          SEQ#12 FED 2 MODE (30)      139.7     0.28          956.9
          SEQ#12 FED 2 MODE (NEUT)     42.1     0.47           66.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE MIXTURE TO SPEC,IDLE SPEED 925 RPM,
                    IDLE CO .05%,HC 40 PPM.

          SEQ#15 FEDERAL TEST PROC.     3.09    18.3   359.3    2.69            22.3
          SEQ#15 50 MPH CRUISE         16.7     0.03           56.8
          SEQ#15 HIGHWAY FUEL ECON.     2.66    14.1   226.3    2.88            34.5
          SEQ#15 4 SPD IDLE (NEUT)     11.2     0.00            0.8
          SEQ#15 4 SPD IDLE (2500)     13.5     0.06            8.3
          SEQ#15 4 SPD IDLE (NEUT)      8.9     0.00            0.9
          SEQ#15 FED 2 MODE (30)       22.3     0.03           98.5
          SEQ#15 FED 2 MODE (NEUT)     13.5     0.01            0.6

          NO FOLLOW UP LANE TEST DONE




 [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                  AUTOMOTIVE TESTING LABORATORIES,INC.

                         TEXAS PILOT I/M STUDY


                        LISTING OF TEST RESULTS
                              HOUSTON #2
                                              EMISSION RESULTS               FUEL
                                    --------- GRAMS / MILE ----------        ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc   CH4    MPG
----  -- ---- --- ------------------   -----   -----   ------   -----  ----   ----
8222  78 VOLK 089 37F / 37     (CON'T)

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,OIL AND OIL
                    FILTER,AIR FILTER,POINTS,ROTOR AND DISTRIBUTOR
                    CAP.SET TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    2.47    17.5    360.4     1.73          22.4
          SEQ#16 50 MPH CRUISE        228.5    0.91           1219.9
          SEQ#16 HIGHWAY FUEL ECON.    2.81    18.0    230.6     2.24          33.1
          SEQ#16 4 SPD IDLE (NEUT)     87.3    6.30              86.2
          SEQ#16 4 SPD IDLE (2500)    165.3    5.81              97.5
          SEQ#16 4 SPD IDLE (NEUT)     88.3    4.98              90.9
          SEQ#16 FED 2 MODE (30)      301.2    2.25             892.7
          SEQ#16 FED 2 MODE (NEUT)     85.3    2.43             115.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   62  CO:   1.90   GAIN:   0


8223  78 VOLK 097 37F / 37

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  171  CO:   7.10   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    2.63    50.3    326.5     1.67          21.4
          SEQ#11 50 MPH CRUISE        140.0    0.91             649.0
          SEQ#11 HIGHWAY FUEL ECON.    1.80    14.9    275.5     2.54          29.1
          SEQ#11 4 SPD IDLE (NEUT)    208.8    6.95              40.1
          SEQ#11 4 SPD IDLE (2500)    122.4    3.42              91.3
          SEQ#11 4 SPD IDLE (NEUT)    207.7    6.66              44.0
          SEQ#11 4 SPD IDLE (DRIV)    303.9    7.13              41.4
          SEQ#11 FED 2 MODE (30)      206.7    2.11             591.4
          SEQ#11 FED 2 MODE (NEUT)    174.3    5.81              52.4

          NO FOLLOW UP LANE TEST DONE


          COMMENT : IDLE NEUTRAL 930 RPM, PROPANE ENRICHED 980 RPM.

          SEQ#12 FEDERAL TEST PROC.    1.66     9.6    391.1     1.99          21.6
          SEQ#12 50 MPH CRUISE         74.4    0.14             372.0
          SEQ#12 HIGHWAY FUEL ECON.    1.42     3.4    309.1     3.44          27.8
          SEQ#12 4 SPD IDLE (NEUT)    148.7    0.60              68.6
          SEQ#12 4 SPD IDLE (2500)     36.8    0.19             127.5
          SEQ#12 4 SPD IDLE (NEUT)    163.0    0.53              73.2
          SEQ#12 4 SPD IDLE (DRIV)    148.0    0.64             107.2
          SEQ#12 FED 2 MODE (30)      102.2    0.18             571.2
          SEQ#12 FED 2 MODE (NEUT)    129.4    0.49              77.9

          NO FOLLOW UP LANE TEST DONE




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                    FUEL
VEH.                                     --------- GRAMS / MILE ----------             ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc    CH4         MPG
----  -- ---- --- ------------------     -----   -----   ------   -----   ----         ----
8223  78 VOLK 097 37F / 37    (CON'T)

          COMMENT : ADJUSTED IDLE NEUTRAL 925 RPM, CO .6%.

          SEQ#13 FEDERAL TEST PROC.      1.60     6.8    398.6     2.01                21.4
          SEQ#13 50 MPH CRUISE           77.1    0.15             423.6
          SEQ#13 HIGHWAY FUEL ECON.      1.30     3.1    310.8     3.45                27.8
          SEQ#13 4 SPD IDLE (NEUT)       96.9    0.40              84.2
          SEQ#13 4 SPD IDLE (2500)       34.2    0.16             138.0
          SEQ#13 4 SPD IDLE (NEUT)       86.3    0.40              83.4
          SEQ#13 4 SPD IDLE (DRIV)      127.1    0.43             127.8
          SEQ#13 FED 2 MODE (30)        110.5    0.42             626.2
          SEQ#13 FED 2 MODE (NEUT)      107.2    0.35              83.1

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE NEUTRAL 925 RPM, CO .35%, HC 60 PPM,
                       PROPANE GAIN 175 RPM.

          SEQ#15 FEDERAL TEST PROC.      1.76     6.8    392.8     2.01                21.7
          SEQ#15 50 MPH CRUISE           97.6    0.20             548.9
          SEQ#15 HIGHWAY FUEL ECON.      1.42     3.2    313.2     3.65                27.5
          SEQ#15 4 SPD IDLE (NEUT)       82.3    0.27             107.0
          SEQ#15 4 SPD IDLE (2500)       47.4    0.16             155.2
          SEQ#15 4 SPD IDLE (NEUT)      143.7    0.32             102.4
          SEQ#15 4 SPD IDLE (DRIV)      118.1    0.30             164.4
          SEQ#15 FED 2 MODE (30)        129.7    0.51             670.2
          SEQ#15 FED 2 MODE (NEUT)       84.3    0.28             109.8

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                    FILTER, POINTS, ROTOR, DISTRIBUTOR CAP, FUEL
                    FILTER, AIR FILTER, ADJUSTED TIMING TO SPEC.
                    REPLACED HOT AND FRESH AIR DUCTS.

          SEQ#16 FEDERAL TEST PROC.      1.44     5.2    378.4     2.39                22.7
          SEQ#16 50 MPH CRUISE           89.3    0.15             677.3
          SEQ#16 HIGHWAY FUEL ECON.      1.39     3.0    309.0     4.37                27.9
          SEQ#16 4 SPD IDLE (NEUT)      116.1    0.32              87.3
          SEQ#16 4 SPD IDLE (2500)       50.6    0.17             165.7
          SEQ#16 4 SPD IDLE (NEUT)      185.0    0.30              93.9
          SEQ#16 4 SPD IDLE (DRIV)      130.7    0.34             160.3
          SEQ#16 FED 2 MODE (30)        121.8    0.12             858.3
          SEQ#16 FED 2 MODE (NEUT)      126.7    0.31             100.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  124  CO:  1.33   GAIN: 100
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                      FUEL
VEH.                                        --------- GRAMS / MILE ----------                 ECON
 NO.  YR MAKE CID     ENGINE FAMILY         HC      CO      CO2     NOxc    CH4    MPG
----  -- ---- --- -----------------      -----   -----   -----   -----   ----   ----
8224  78 SUBA 097 BU / GU

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  219   CO:  6.64   GAIN:    0

          SEQ#11 FEDERAL TEST PROC.     1.71    24.6    294.7     3.23             26.2
          SEQ#11 50 MPH CRUISE          69.5    0.22            2494.8
          SEQ#11 HIGHWAY FUEL ECON.     0.71     5.9    215.0     4.50             39.2
          SEQ#11 4 SPD IDLE (NEUT)     109.5    4.62              54.5
          SEQ#11 4 SPD IDLE (2500)       8.2    0.34             110.6
          SEQ#11 4 SPD IDLE (NEUT)      93.3    4.55              50.8
          SEQ#11 FED 2 MODE (30)        73.8    0.16            2356.8
          SEQ#11 FED 2 MODE (NEUT)      91.6    4.57              79.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT.50
                    RPM PROPANE GAIN ACHEIVED AT STEP 7 OF PROPANE
                    ADJUSTMENT M-1.IDLE RPM WITHOUT PROPANE 850,WITH
                    PROPANE 900 RPM.

          SEQ#12 FEDERAL TEST PROC.     1.25    10.1    292.2     3.26             28.4
          SEQ#12 50 MPH CRUISE          54.6    0.22            2221.9
          SEQ#12 HIGHWAY FUEL ECON.     0.57     4.1    214.1     4.39             39.9
          SEQ#12 4 SPD IDLE (NEUT)      81.4    0.29              89.3
          SEQ#12 4 SPD IDLE (2500)       5.9    0.14             146.0
          SEQ#12 4 SPD IDLE (NEUT)      61.5    0.32              71.5
          SEQ#12 FED 2 MODE (30)        19.7    0.27            1653.2
          SEQ#12 FED 2 MODE (NEUT)      38.8    0.35             112.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   87   CO:  0.85   GAIN:    9

          COMMENT : CO .3% ON HOOK-UP..5% IDLE CO ACHEIVED AT STEP 3
                    OF IDLE CO CARBURETOR ADJUSTMENT PROCEDURE M-
                    1.IDLE NEUTRAL 870 RPM.

          SEQ#13 FEDERAL TEST PROC.     1.55     9.8    294.0     3.44             28.2
          SEQ#13 50 MPH CRUISE          51.6    0.23            1891.2
          SEQ#13 HIGHWAY FUEL ECON.     0.52     3.9    203.9     4.54             41.9
          SEQ#13 4 SPD IDLE (NEUT)      47.0    0.56              92.1
          SEQ#13 4 SPD IDLE (2500)       3.9    0.16             148.5
          SEQ#13 4 SPD IDLE (NEUT)      27.9    0.40              76.2
          SEQ#13 FED 2 MODE (30)        78.4    0.15            1776.0
          SEQ#13 FED 2 MODE (NEUT)      37.5    0.41              95.2

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   80   CO:  0.40   GAIN:   30




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                   FUEL
VEH.                                        ---------- GRAMS / MILE ----------           ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc    CH4         MPG
----   -- ---- ---  -----------------      -----   -----   ------   -----   ----        ----
8224   78 SUBA 097  BU / GU     (CON'T)

          COMMENT : ADJUSTED TIMING & IDLE SPEED & MIXUTRE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.         1.45    18.9    293.3    2.83               27.1
          SEQ#15 50 MPH CRUISE             53.0     0.23           1758.5
          SEQ#15 HIGHWAY FUEL ECON.         0.51     4.6    210.5    4.11               40.5
          SEQ#15 4 SPD IDLE (NEUT)         60.2     2.79             90.6
          SEQ#15 4 SPD IDLE (2500)          0.7     0.18            149.1
          SEQ#15 4 SPD IDLE (NEUT)         45.7     2.74             69.8
          SEQ#15 FED 2 MODE (30)           50.0     0.19           1766.0
          SEQ#15 FED 2 MODE (NEUT)         45.4     2.70            134.7

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   46  CO:  1.50   GAIN:   0

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR FILTER,
                    FUEL FILTER,IGNITION POINTS.ADJUSTED TIMING,IDLE
                    SPEED & MIXTURE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.         1.22    12.0    293.6    3.11               28.1
          SEQ#16 50 MPH CRUISE             37.8     0.24           1695.8
          SEQ#16 HIGHWAY FUEL ECON.         0.43     3.9    208.0    4.55               41.2
          SEQ#16 4 SPD IDLE (NEUT)         51.3     1.55             70.5
          SEQ#16 4 SPD IDLE (2500)          0.0     0.16            136.2
          SEQ#16 4 SPD IDLE (NEUT)         17.4     1.24             62.9
          SEQ#16 FED 2 MODE (30)           13.5     0.25           1425.3
          SEQ#16 FED 2 MODE (NEUT)         22.3     1.12             68.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   16  CO:  1.23   GAIN:   0

7226   77 AMC  258 I-2

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   15  CO:  0.50   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.         2.10    55.7    580.1    2.39               13.2
          SEQ#11 50 MPH CRUISE             86.6     0.10            686.4
          SEQ#11 HIGHWAY FUEL ECON.         0.10     3.0    443.1    2.97               19.8
          SEQ#11 4 SPD IDLE (NEUT)         27.3     0.42             31.0
          SEQ#11 4 SPD IDLE (2500)         13.5     0.15            155.2
          SEQ#11 4 SPD IDLE (NEUT)          8.5     0.36             34.1
          SEQ#11 4 SPD IDLE (DRIV)         28.3     1.58             49.2
          SEQ#11 FED 2 MODE (30)           15.1     0.58            452.9
          SEQ#11 FED 2 MODE (NEUT)          2.3     0.41             31.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   10  CO:  0.37   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                    FUEL
                                             --------- GRAMS / MILE ----------          ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2      NOxc     CH4      MPG
----  -- ---- --- -----------------      -----   -----   ------    -----    ----      ---
7226  77 AMC  258 I-2     (CON'T)

          COMMENT : IDLE NEUTRAL 710 RPM,WITH PROPANE 760 RPM.

          SEQ#12 FEDERAL TEST PROC.      4.74    51.1    596.5      3.14              12.8
          SEQ#12 50 MPH CRUISE          36.2     0.12            1503.0
          SEQ#12 HIGHWAY FUEL ECON.      0.63     4.1    439.3      4.57              19.8
          SEQ#12 4 SPD IDLE (NEUT)     259.4     0.11              13.9
          SEQ#12 4 SPD IDLE (2500)      21.3     0.08             159.6
          SEQ#12 4 SPD IDLE (NEUT)     242.9     0.12              17.7
          SEQ#12 4 SPD IDLE (DRIV)    1320.9     0.10               9.6
          SEQ#12 FED 2 MODE (30)        80.0     0.18             565.1
          SEQ#12 FED 2 MODE (NEUT)      67.8     0.08              35.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  242   CO:  0.12    GAIN:  80

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.      2.20    14.8    563.9      2.56              14.9
          SEQ#15 50 MPH CRUISE          57.6     0.10            1302.6
          SEQ#15 HIGHWAY FUEL ECON.      0.51     3.0    406.0      4.48              21.5
          SEQ#15 4 SPD IDLE (NEUT)      43.1     0.23              33.7
          SEQ#15 4 SPD IDLE (2500)       8.9     0.08             154.7
          SEQ#15 4 SPD IDLE (NEUT)      38.1     0.29              38.7
          SEQ#15 4 SPD IDLE (DRIV)      57.9     0.24              61.3
          SEQ#15 FED 2 MODE (30)        14.8     0.11             475.1
          SEQ#15 FED 2 MODE (NEUT)      31.2     0.27              33.8

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   39   CO:  0.29    GAIN:  70

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR,FUEL,
                    CARBON CANISTER,OIL & CRANKCASE BREATHER FILTERS,
                    PCV VALVE,ENGINE OIL,EGR VALVE,THERMAL
                    SENSOR.ADJUSTED CHOKE,REPAIRED LINKAGE,ADJUSTED
                    IDLE SPEED &MIXTURE.

          SEQ#16 FEDERAL TEST PROC.      1.63    20.5    572.0      1.46              14.6
          SEQ#16 50 MPH CRUISE          16.1     0.21             436.7
          SEQ#16 HIGHWAY FUEL ECON.      0.21     6.4    417.5      1.75              20.7
          SEQ#16 4 SPD IDLE (NEUT)      24.0     0.68              33.1
          SEQ#16 4 SPD IDLE (2500)       0.3     0.13              72.3
          SEQ#16 4 SPD IDLE (NEUT)      16.1     0.80              37.8
          SEQ#16 4 SPD IDLE (DRIV)      63.2     1.46              50.8
          SEQ#16 FED 2 MODE (30)         9.5     0.37             414.5
          SEQ#16 FED 2 MODE (NEUT)      15.8     0.82              33.6

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   16   CO:  0.80    GAIN: 100
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                        FUEL
VEH.                                       --------- GRAMS / MILE ----------                 ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2      NOxc     CH4            MPG
----   -- ---- --- -----------------       -----   -----   ------   -----   ----           ----
7227   77 BUIC 231 740E2

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:   85  CO:  4.16   GAIN:  20

         SEQ#11 FEDERAL TEST PROC.          1.59    48.1    536.1     1.55                   14.4
         SEQ#11 50 MPH CRUISE              10.2     0.00            338.7
         SEQ#11 HIGHWAY FUEL ECON.          0.38    11.8    360.0     1.20                   23.4
         SEQ#11 4 SPD IDLE (NEUT)          69.5     2.74             61.2
         SEQ#11 4 SPD IDLE (2500)          40.4     0.01            107.7
         SEQ#11 4 SPD IDLE (NEUT)          72.1     3.38             69.5
         SEQ#11 4 SPD IDLE (DRIV)         124.4     3.42            102.6
         SEQ#11 FED 2 MODE (30)            22.3     0.01            195.2
         SEQ#11 FED 2 MODE (NEUT)          72.4     3.32             67.3

         NO FOLLOW UP LANE TEST DONE

         COMMENT : IDLE SPEED 600 RPM DRIVE, IDLE CO .3%.

         SEQ#13 FEDERAL TEST PROC.          1.23    29.8    562.3     1.71                   14.5
         SEQ#13 50 MPH CRUISE               0.0     0.01            311.4
         SEQ#13 HIGHWAY FUEL ECON.          0.32     9.2    366.3     1.21                   23.2
         SEQ#13 4 SPD IDLE (NEUT)          37.8     0.73             60.7
         SEQ#13 4 SPD IDLE (2500)          33.8     0.01             96.5
         SEQ#13 4 SPD IDLE (NEUT)          39.1     0.98             66.2
         SEQ#13 4 SPD IDLE (DRIV)          83.7     1.24            137.5
         SEQ#13 FED 2 MODE (30)            14.1     0.12            132.1
         SEQ#13 FED 2 MODE (NEUT)          38.5     1.21             65.7

         NO FOLLOW UP LANE TEST DONE

         COMMENT : LEAN DROP OF 40 RPM IN DRIVE, IDLE SPEED 600
                   DRIVE, IDLE CO .85%, IDLE HC 120 PPM.  TIMING IS
                   RECOMMENDED BEFORE ADJUSTING MIXTURE AND WAS
                   RESET.

         SEQ#15 FEDERAL TEST PROC.          1.44    19.8    600.0     1.71                   14.0
         SEQ#15 50 MPH CRUISE               0.0     0.00            270.9
         SEQ#15 HIGHWAY FUEL ECON.          0.16     3.6    368.2     1.37                   23.7
         SEQ#15 4 SPD IDLE (NEUT)           0.0     0.02             37.0
         SEQ#15 4 SPD IDLE (2500)          38.5     0.00             88.8
         SEQ#15 4 SPD IDLE (NEUT)           0.0     0.25             26.1
         SEQ#15 4 SPD IDLE (DRIV)          48.0     0.65            117.5
         SEQ#15 FED 2 MODE (30)             0.3     0.01            159.1
         SEQ#15 FED 2 MODE (NEUT)          20.0     0.82             59.5

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   17  CO:  0.06   GAIN:  70
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                        AUTOMOTIVE TESTING LABORATORIES,INC.

                              TEXAS PILOT I/M STUDY


                             LISTING OF TEST RESULTS
                                  HOUSTON #2

                                                       EMISSION RESULTS                FUEL
VEH.                                          --------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- ---  -----------------     -----   -----   ------   -----   ----     ----
7227   77 BUIC 231  740E2    (CON'T)

          COMMENT : REPLACED SPARK PLUGS, AIR, FUEL AND OIL FILTER,
                    ENGINE OIL AND PCV VALVE AND FILTER.  SET TO
                    MANUFACTURERS SPEC.

          SEQ#16 FEDERAL TEST PROC.   1.10    25.1    580.5    1.70              14.2
          SEQ#16 50 MPH CRUISE         5.9    0.00            326.5
          SEQ#16 HIGHWAY FUEL ECON.   0.12     2.3    383.9    1.60              22.9
          SEQ#16 4 SPD IDLE (NEUT)     3.3    0.01             70.4
          SEQ#16 4 SPD IDLE (2500)    45.4    0.01            107.0
          SEQ#16 4 SPD IDLE (NEUT)     3.0    0.02             51.9
          SEQ#16 4 SPD IDLE (DRIV)    47.0    0.40            136.0
          SEQ#16 FED 2 MODE (30)       6.6    0.01            172.7
          SEQ#16 FED 2 MODE (NEUT)     2.3    0.03             51.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   21  CO:  0.02   GAIN:  90

7229  77 BUIC 350 730M4AU

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   12  CO:  0.01   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.   0.44     3.8    713.2    1.63              12.3
          SEQ#11 50 MPH CRUISE         9.5    0.00            273.0
          SEQ#11 HIGHWAY FUEL ECON.   0.08     0.1    463.2    1.35              19.1
          SEQ#11 4 SPD IDLE (NEUT)     5.6    0.01             37.1
          SEQ#11 4 SPD IDLE (2500)     0.0    0.01             96.4
          SEQ#11 4 SPD IDLE (NEUT)     3.3    0.01             37.5
          SEQ#11 4 SPD IDLE (DRIV)     4.6    0.01             43.0
          SEQ#11 FED 2 MODE (30)       8.2    0.00            282.0
          SEQ#11 FED 2 MODE (NEUT)     6.2    0.00             37.2

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   12  CO:  0.01   GAIN:   0

          COMMENT : ADJUSTED IDLE DRIVE 550 RPMS,IDLE NEUTRAL 660
                    RPMS,PROPANE GAIN 50 RPMS.

          SEQ#12 FEDERAL TEST PROC.   0.44     3.2    685.7    1.74              12.8
          SEQ#12 50 MPH CRUISE         4.6    0.00            297.2
          SEQ#12 HIGHWAY FUEL ECON.   0.08     0.1    476.5    1.41              18.6
          SEQ#12 4 SPD IDLE (NEUT)     4.9    0.01             36.8
          SEQ#12 4 SPD IDLE (2500)     0.0    0.00            104.2
          SEQ#12 4 SPD IDLE (NEUT)     0.7    0.00             40.7
          SEQ#12 4 SPD IDLE (DRIV)     2.3    0.00             64.4
          SEQ#12 FED 2 MODE (30)      23.6    0.01            333.6
          SEQ#12 FED 2 MODE (NEUT)     8.2    0.01             39.5

          NO FOLLOW UP LANE TEST DONE


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                 FUEL
                                          --------- GRAMS / MILE ----------            ECON
VEH.
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc     CH4      MPG
----   -- ---- ---  ----------------     -----   -----   ------   -----    ----     ----
7229   77 BUIC 350 730M4AU    (CON'T)

          COMMENT : CARBURETOR ADJUSTED,640-600 LEAN DROP IN DRIVE,
                    RESET IDLE SPEED TO ES SPEC.TIMING NOT ADJUSTED.

          SEQ#15 FEDERAL TEST PROC.    0.41     3.4    679.6    1.65             12.9
          SEQ#15 50 MPH CRUISE          6.9    0.01            284.1
          SEQ#15 HIGHWAY FUEL ECON.    0.08     0.3    461.3    1.26             19.2
          SEQ#15 4 SPD IDLE (NEUT)      2.6    0.00             38.6
          SEQ#15 4 SPD IDLE (2500)      0.0    0.00             97.3
          SEQ#15 4 SPD IDLE (NEUT)      0.0    0.00             40.0
          SEQ#15 4 SPD IDLE (DRIV)      0.0    0.00             60.4
          SEQ#15 FED 2 MODE (30)       19.7    0.00            319.5
          SEQ#15 FED 2 MODE (NEUT)      7.5    0.00             42.8

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   43  CO:  0.03   GAIN:  70

7230  77 BUIC 350 730M4U

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  785  CO:  4.01   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    2.51    26.5    531.2    1.97             15.3
          SEQ#11 50 MPH CRUISE         73.4    0.01            789.1
          SEQ#11 HIGHWAY FUEL ECON.    0.28     1.7    409.7    2.69             21.5
          SEQ#11 4 SPD IDLE (NEUT)    691.8    0.92             35.1
          SEQ#11 4 SPD IDLE (2500)    155.0    0.01            271.9
          SEQ#11 4 SPD IDLE (NEUT)    589.6    2.12             37.3
          SEQ#11 4 SPD IDLE (DRIV)    330.8    3.14             47.0
          SEQ#11 FED 2 MODE (30)       79.7    0.00            530.7
          SEQ#11 FED 2 MODE (NEUT)    934.3    1.28             25.9

          NO FOLLOW UP LANE TEST DONE


          COMMENT : IDLE DRIVE 500 RPM, IDLE NEUTRAL 700 RPM, PROPANE
                    GAIN IN NEUTRAL 50 RPM.  USED UNIVERSAL METHOD.

          SEQ#12 FEDERAL TEST PROC.    1.42    13.6    561.3    2.06             15.1
          SEQ#12 50 MPH CRUISE          8.2    0.00            747.1
          SEQ#12 HIGHWAY FUEL ECON.    0.14     0.7    405.3    2.71             21.8
          SEQ#12 4 SPD IDLE (NEUT)     17.1    0.00             62.4
          SEQ#12 4 SPD IDLE (2500)     78.0    0.00            287.1
          SEQ#12 4 SPD IDLE (NEUT)     10.8    0.00             64.9
          SEQ#12 4 SPD IDLE (DRIV)      0.0    0.00            103.4
          SEQ#12 FED 2 MODE (30)       19.7    0.00            584.3
          SEQ#12 FED 2 MODE (NEUT)     33.5    0.00             72.8

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  169  CO:  0.02   GAIN:  90
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                               EMISSION RESULTS                FUEL
VEH.                                 --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY     HC     CO     CO2    NOxc    CH4       MPG
----   -- ---- --- ------------------ -----  -----  -----   -----   ----      ----
7230   77 BUIC 350 730M4U    (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE TO 550 RPM, IDLE NEUTRAL TO
                    680 RPM, CO .3%, HC 740 PPM.  USED UNIVERSAL
                    METHOD.

          SEQ#13 FEDERAL TEST PROC.   1.95   20.7   552.0   1.93             15.0
          SEQ#13 50 MPH CRUISE       26.0    0.01          685.4
          SEQ#13 HIGHWAY FUEL ECON.   0.22    1.3   409.7   2.65             21.5
          SEQ#13 4 SPD IDLE (NEUT)   28.3    0.01           36.2
          SEQ#13 4 SPD IDLE (2500)   78.7    0.01          239.6
          SEQ#13 4 SPD IDLE (NEUT)  492.8    0.25           35.2
          SEQ#13 4 SPD IDLE (DRIV)  308.8    0.89           59.6
          SEQ#13 FED 2 MODE (30)     43.7    0.00          453.9
          SEQ#13 FED 2 MODE (NEUT)  765.1    0.09           18.2

          NO FOLLOW UP LANE TEST DONE


          COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.  IDLE
                    DRIVE 550 RPM, PROPANE GAIN 70 RPM.

          SEQ#15 FEDERAL TEST PROC.   0.57    4.3   572.5   2.01             15.3
          SEQ#15 50 MPH CRUISE       17.4    0.00          695.5
          SEQ#15 HIGHWAY FUEL ECON.   0.09    0.4   422.7   2.75             21.0
          SEQ#15 4 SPD IDLE (NEUT)   13.5    0.00           26.5
          SEQ#15 4 SPD IDLE (2500)   68.5    0.00          249.7
          SEQ#15 4 SPD IDLE (NEUT)   20.0    0.00           31.0
          SEQ#15 4 SPD IDLE (DRIV)   13.8    0.00           41.8
          SEQ#15 FED 2 MODE (30)     22.7    0.01          534.8
          SEQ#15 FED 2 MODE (NEUT)   53.6    0.00           34.6

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   26   CO:   0.01    GAIN: 260

7231   77 CADI 425 760V4U

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  302   CO:   3.71    GAIN:   0

          SEQ#11 FEDERAL TEST PROC.   2.63   54.6   684.6   1.60             11.4
          SEQ#11 50 MPH CRUISE       34.8    0.01          294.2
          SEQ#11 HIGHWAY FUEL ECON.   0.38    5.9   481.1   1.47             18.1
          SEQ#11 4 SPD IDLE (NEUT)  417.0    2.56           63.5
          SEQ#11 4 SPD IDLE (2500)   24.6    0.01          109.0
          SEQ#11 4 SPD IDLE (NEUT)  330.8    2.56           76.7
          SEQ#11 4 SPD IDLE (DRIV)  207.1    2.91          201.4
          SEQ#11 FED 2 MODE (30)    162.7    2.51          132.4
          SEQ#11 FED 2 MODE (NEUT)  388.2    2.55           65.3

          NO FOLLOW UP LANE TEST DONE



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                     AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2
                                            EMISSION RESULTS                     FUEL
                                    ---------- GRAMS / MILE -----------          ECON
VEH.                                  HC      CO      CO2     NOxc    CH4       MPG
 NO.   YR MAKE CID   ENGINE FAMILY   -----   -----   ------  -----   ----      ----
----   -- ---- ---  ---------------
7231   77 CADI 425  760V4U     (CON'T)

         COMMENT : ADJUSTED IDLE DRIVE TO 600 RPM, IDLE NEUTRAL TO
                   735 RPM, PROPANE GAIN IN NEUTRAL 50 RPM.  DRIVE
                   SPRING TENSION TOO WEAK.

         SEQ#12 FEDERAL TEST PROC.   2.30    39.5    662.8    1.48              12.1
         SEQ#12 50 MPH CRUISE       35.8     0.01            284.1
         SEQ#12 HIGHWAY FUEL ECON.   0.29     3.7    460.4    1.35              19.0
         SEQ#12 4 SPD IDLE (NEUT)  669.0     0.56             52.1
         SEQ#12 4 SPD IDLE (2500)   18.1     0.01            116.2
         SEQ#12 4 SPD IDLE (NEUT)  450.4     1.52             64.9
         SEQ#12 4 SPD IDLE (DRIV)  209.8     2.00            164.2
         SEQ#12 FED 2 MODE (30)    157.0     2.46            123.4
         SEQ#12 FED 2 MODE (NEUT)  612.2     1.06             51.2

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  456  CO:  2.53   GAIN:   0

         COMMENT : IDLE DRIVE 580 RPM, IDLE CO .4%.

         SEQ#13 FEDERAL TEST PROC.   2.53    41.0    670.7    1.44              11.9
         SEQ#13 50 MPH CRUISE       25.6     0.01            265.9
         SEQ#13 HIGHWAY FUEL ECON.   0.36     5.2    472.8    1.39              18.4
         SEQ#13 4 SPD IDLE (NEUT)  714.6     0.61             47.5
         SEQ#13 4 SPD IDLE (2500)   29.6     0.01            109.0
         SEQ#13 4 SPD IDLE (NEUT)  479.4     1.49             65.8
         SEQ#13 4 SPD IDLE (DRIV)  208.1     2.04            179.6
         SEQ#13 FED 2 MODE (30)    120.8     1.28            137.0
         SEQ#13 FED 2 MODE (NEUT)  765.1     0.62             46.8

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE SPEED AND MIXTURE.

         SEQ#15 FEDERAL TEST PROC.   0.73    11.0    717.4    1.69              12.0
         SEQ#15 50 MPH CRUISE        5.3     0.00            262.8
         SEQ#15 HIGHWAY FUEL ECON.   0.10     1.5    470.0    1.40              18.8
         SEQ#15 4 SPD IDLE (NEUT)    3.6     0.01            133.4
         SEQ#15 4 SPD IDLE (2500)    0.7     0.01            112.6
         SEQ#15 4 SPD IDLE (NEUT)   19.4     0.01            155.2
         SEQ#15 4 SPD IDLE (DRIV)    0.0     0.01            344.7
         SEQ#15 FED 2 MODE (30)      5.3     0.01            143.7
         SEQ#15 FED 2 MODE (NEUT)   61.9     0.01            122.4

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   16  CO:  0.00   GAIN: 190


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7232	77	CHEV	098	710W1						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 291 CO: 9.29 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	2.37	28.5	301.4	2.05		25.1
SEQ#11 50 MPH CRUISE	29.2	0.01		569.2		
SEQ#11 HIGHWAY FUEL ECON.	0.37	2.1	232.5	2.57		37.5
SEQ#11 4 SPD IDLE (NEUT)	288.4	5.36		4.4		
SEQ#11 4 SPD IDLE (2500)	35.5	0.43		100.1		
SEQ#11 4 SPD IDLE (NEUT)	238.6	5.28		7.4		
SEQ#11 FED 2 MODE (30)	40.8	0.01		392.2		
SEQ#11 FED 2 MODE (NEUT)	250.7	5.30		14.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 800 RPMS, PROPANE GAIN 180 RPMS. USED UNIVERSAL METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	0.86	5.5	330.9	1.89		25.9
SEQ#12 50 MPH CRUISE	12.8	0.01		670.2		
SEQ#12 HIGHWAY FUEL ECON.	0.12	0.4	230.9	2.40		38.3
SEQ#12 4 SPD IDLE (NEUT)	67.1	0.00		24.3		
SEQ#12 4 SPD IDLE (2500)	25.6	0.00		110.1		
SEQ#12 4 SPD IDLE (NEUT)	67.8	0.00		24.2		
SEQ#12 FED 2 MODE (30)	15.1	0.01		435.7		
SEQ#12 FED 2 MODE (NEUT)	92.6	0.00		27.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE SPEED 800 RPMS NEUTRAL, IDLE CO .02-2.5%. DEFECTIVE SPARK PLUG WIRES CAUSE CO AND HC READINGS TO FLUCTUATE. ADJUSTMENTS WERE MADE WHICH RESULTED IN AN OVERALL LOWERING OF THE AVERAGE CO VOLUME.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	1.16	12.6	307.7	2.19		26.8
SEQ#13 50 MPH CRUISE	34.5	0.04		599.5		
SEQ#13 HIGHWAY FUEL ECON.	0.45	3.5	224.2	2.17		38.4
SEQ#13 4 SPD IDLE (NEUT)	45.7	0.04		21.3		
SEQ#13 4 SPD IDLE (2500)	12.1	0.00		185.5		
SEQ#13 4 SPD IDLE (NEUT)	17.4	0.07		11.1		
SEQ#13 FED 2 MODE (30)	33.2	0.02		507.5		
SEQ#13 FED 2 MODE (NEUT)	27.6	0.10		12.5		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                        EMISSION RESULTS                FUEL
VEH.                                          --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY           HC      CO      CO2     NOxc     CH4      MPG
----   -- ---- --- -----------------------  -----   -----   ------   -----    ----     ----
7232   77 CHEV 098 710W1     (CON'T)

          COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.SPARK PLUG WIRES
                    ARE STILL ARCING.

          SEQ#15 FEDERAL TEST PROC.         0.92    12.3    326.1    2.29              25.5
          SEQ#15 50 MPH CRUISE             50.0     0.07           1540.5
          SEQ#15 HIGHWAY FUEL ECON.         0.41     3.7    235.5    2.36              36.6
          SEQ#15 4 SPD IDLE (NEUT)         50.0     0.00             97.5
          SEQ#15 4 SPD IDLE (2500)         17.1     0.00            358.9
          SEQ#15 4 SPD IDLE (NEUT)         49.7     0.00            101.3
          SEQ#15 FED 2 MODE (30)           53.6     0.03           1104.7
          SEQ#15 FED 2 MODE (NEUT)         30.9     0.00            102.9

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    11  CO:  0.02   GAIN:   0

          COMMENT : MAJOR TUNE-UP,REPLACED SPARK PLUGS,IGNITION WIRES,
                    OIL AND OIL FILTER,FUEL AND CANISTER FILTER.SET
                    TO SPEC.

          SEQ#16 FEDERAL TEST PROC.         0.93    11.1    321.1    2.37              26.0
          SEQ#16 50 MPH CRUISE             53.3     0.05           1405.3
          SEQ#16 HIGHWAY FUEL ECON.         0.35     1.9    236.7    2.43              36.9
          SEQ#16 4 SPD IDLE (NEUT)         11.5     0.05             38.5
          SEQ#16 4 SPD IDLE (2500)          8.2     0.01            348.8
          SEQ#16 4 SPD IDLE (NEUT)         10.5     0.01             81.1
          SEQ#16 FED 2 MODE (30)           58.9     0.03           1039.5
          SEQ#16 FED 2 MODE (NEUT)         18.1     0.20             18.3

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:     9  CO:  0.04   GAIN: 100

7233   77 CHEV 140 710C2

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:   517  CO:  1.13   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.         1.37     7.3    439.7    2.42              19.5
          SEQ#11 50 MPH CRUISE             16.4     0.06            759.2
          SEQ#11 HIGHWAY FUEL ECON.         0.26     1.1    333.8    1.93              26.4
          SEQ#11 4 SPD IDLE (NEUT)         27.3     0.05             59.8
          SEQ#11 4 SPD IDLE (2500)         37.8     0.18             91.5
          SEQ#11 4 SPD IDLE (NEUT)         50.3     0.02             80.0
          SEQ#11 4 SPD IDLE (DRIV)         89.0     0.04            176.8
          SEQ#11 FED 2 MODE (30)           72.4     0.06            403.4
          SEQ#11 FED 2 MODE (NEUT)         78.7     0.04             85.7

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
7233	77	CHEV	140	710C2 (CON'T)

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 80 RPM.

	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NOxc	CH4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	1.22	6.7	420.9	2.25		20.4
SEQ#12 50 MPH CRUISE	27.3	0.06		863.3		
SEQ#12 HIGHWAY FUEL ECON.	0.36	2.0	326.3	2.35		26.9
SEQ#12 4 SPD IDLE (NEUT)	28.3	0.20		55.6		
SEQ#12 4 SPD IDLE (2500)	27.3	0.54		71.1		
SEQ#12 4 SPD IDLE (NEUT)	31.9	0.03		70.1		
SEQ#12 4 SPD IDLE (DRIV)	119.8	0.29		95.9		
SEQ#12 FED 2 MODE (30)	115.8	0.24		421.6		
SEQ#12 FED 2 MODE (NEUT)	45.0	0.06		71.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .15%, HC 200 PPM.

	HC	CO	CO_2	NOxc	CH4	MPG
SEQ#15 FEDERAL TEST PROC.	1.26	6.4	475.2	2.63		18.1
SEQ#15 50 MPH CRUISE	23.6	0.05		779.4		
SEQ#15 HIGHWAY FUEL ECON.	0.18	1.2	371.7	2.20		23.7
SEQ#15 4 SPD IDLE (NEUT)	40.1	0.02		74.0		
SEQ#15 4 SPD IDLE (2500)	48.3	0.50		66.6		
SEQ#15 4 SPD IDLE (NEUT)	67.1	0.01		88.5		
SEQ#15 4 SPD IDLE (DRIV)	83.0	0.01		171.1		
SEQ#15 FED 2 MODE (30)	63.5	0.05		394.3		
SEQ#15 FED 2 MODE (NEUT)	118.4	0.02		81.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, PCV VALVE, AIR CLEANER, OIL & OIL FILTER, PURGE CANISTER FILTER, ADJUSTED IDLE SPEED & MIXTURE, TIMING, PRIMARY VACUUM BREAK TO SPEC.

	HC	CO	CO_2	NOxc	CH4	MPG
SEQ#16 FEDERAL TEST PROC.	1.20	6.6	435.8	2.55		19.7
SEQ#16 50 MPH CRUISE	27.9	0.05		731.9		
SEQ#16 HIGHWAY FUEL ECON.	0.21	1.3	344.8	2.35		25.5
SEQ#16 4 SPD IDLE (NEUT)	107.5	0.02		67.7		
SEQ#16 4 SPD IDLE (2500)	106.5	0.11		77.2		
SEQ#16 4 SPD IDLE (NEUT)	120.8	0.01		75.8		
SEQ#16 4 SPD IDLE (DRIV)	83.0	0.01		151.1		
SEQ#16 FED 2 MODE (30)	58.2	0.05		329.6		
SEQ#16 FED 2 MODE (NEUT)	120.1	0.03		76.7		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 137 CO: 0.04 GAIN: 101

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2
                                              EMISSION RESULTS              FUEL
                                     --------- GRAMS / MILE ----------      ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY      HC      CO     CO2    NOxc   CH4    MPG
----  -- ---- --- -----------------   -----   -----  -----   -----  ----   ----
7238  77 CHEV 350 710J4

         PRELIMINARY LANE TEST:
         CAT: P     FUEL: P
         HC:  430   CO:  6.82   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.     3.34    67.2   569.8   2.20          12.9
         SEQ#11 50 MPH CRUISE          16.4    0.01          264.9
         SEQ#11 HIGHWAY FUEL ECON.     0.39     4.3   432.4   2.59          20.2
         SEQ#11 4 SPD IDLE (NEUT)     337.4    4.36           16.7
         SEQ#11 4 SPD IDLE (2500)      33.5    0.02           84.2
         SEQ#11 4 SPD IDLE (NEUT)     341.8    4.32           19.6
         SEQ#11 4 SPD IDLE (DRIV)     262.8    4.95           25.8
         SEQ#11 FED 2 MODE (30)        33.2    0.01          137.0
         SEQ#11 FED 2 MODE (NEUT)     286.9    3.72           26.5

         NO FOLLOW UP LANE TEST DONE


         COMMENT : ADJUSTED IDLE DRIVE 500 RPM, NEUTRAL 680 RPM,
                   PROPANE GAIN 50 RPM.  USED UNIVERSAL PROPANE
                   METHOD.

         SEQ#12 FEDERAL TEST PROC.     0.98     7.5   604.1   2.38          14.3
         SEQ#12 50 MPH CRUISE          15.8    0.00          165.0
         SEQ#12 HIGHWAY FUEL ECON.     0.30     3.3   431.7   2.09          20.3
         SEQ#12 4 SPD IDLE (NEUT)      78.0    0.48           13.8
         SEQ#12 4 SPD IDLE (2500)      38.8    0.44           32.5
         SEQ#12 4 SPD IDLE (NEUT)      90.3    0.84           14.5
         SEQ#12 4 SPD IDLE (DRIV)      89.0    0.81           37.2
         SEQ#12 FED 2 MODE (30)        18.4    0.00          102.4
         SEQ#12 FED 2 MODE (NEUT)      69.8    0.20           10.4

         NO FOLLOW UP LANE TEST DONE


         COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

         SEQ#15 FEDERAL TEST PROC.     0.76     7.5   612.0   1.84          14.2
         SEQ#15 50 MPH CRUISE          15.4    0.01          332.6
         SEQ#15 HIGHWAY FUEL ECON.     0.05     0.1   448.9   2.01          19.8
         SEQ#15 4 SPD IDLE (NEUT)     304.4    0.33           28.2
         SEQ#15 4 SPD IDLE (2500)      12.8    0.01          139.3
         SEQ#15 4 SPD IDLE (NEUT)      19.4    0.01           53.1
         SEQ#15 4 SPD IDLE (DRIV)      29.6    0.18           24.9
         SEQ#15 FED 2 MODE (30)         4.9    0.01          193.1
         SEQ#15 FED 2 MODE (NEUT)      30.9    0.01           51.7

         NO FOLLOW UP LANE TEST DONE




   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                    EMISSION RESULTS                       FUEL
VEH.                                     ---------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc     CH4             MPG
----   -- ---- --- ------------------   -----   -----   ------   -----    ----            ----
7238   77 CHEV 350 710J4     (CON'T)

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                    FILTER, PCV VALVE AND FILTER, FUEL FILTER, SET TO
                    SPEC.

          SEQ#16 FEDERAL TEST PROC.     0.78     8.2    631.3    1.79                      13.7
          SEQ#16 50 MPH CRUISE          7.2     0.01            378.1
          SEQ#16 HIGHWAY FUEL ECON.     0.09     0.5    455.7    2.06                      19.4
          SEQ#16 4 SPD IDLE (NEUT)    348.4     1.26             33.8
          SEQ#16 4 SPD IDLE (2500)      6.6     0.01            143.4
          SEQ#16 4 SPD IDLE (NEUT)    144.4     0.53             22.1
          SEQ#16 4 SPD IDLE (DRIV)    114.5     0.63             57.1
          SEQ#16 FED 2 MODE (30)        4.6     0.01            164.8
          SEQ#16 FED 2 MODE (NEUT)     32.5     0.01             57.6

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:     9  CO:  0.02    GAIN:  30

7240  77 CHEV 350 710J4

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:   303  CO:  7.51    GAIN:  10

          SEQ#11 FEDERAL TEST PROC.     2.22    55.2    619.1    1.93                      12.4
          SEQ#11 50 MPH CRUISE         15.4     0.00            357.9
          SEQ#11 HIGHWAY FUEL ECON.     0.25     3.3    452.3    2.02                      19.4
          SEQ#11 4 SPD IDLE (NEUT)    291.1     5.57             31.6
          SEQ#11 4 SPD IDLE (2500)     26.9     0.02            158.3
          SEQ#11 4 SPD IDLE (NEUT)    261.8     5.75             39.6
          SEQ#11 4 SPD IDLE (DRIV)    257.7     6.23             51.2
          SEQ#11 FED 2 MODE (30)       31.5     0.00            220.4
          SEQ#11 FED 2 MODE (NEUT)    273.5     5.91             40.2

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 500 RPM, IDLE IN NEUTRAL 580
                    RPM, IDLE CO NEUTRAL 45%, HC 900 PPM. RIGHT IDLE
                    SCREW SCREWED ALL THE WAY IN. USED UNIVERSAL
                    METHOD.

          SEQ#13 FEDERAL TEST PROC.     0.70    10.7    633.8    1.72                      13.6
          SEQ#13 50 MPH CRUISE          0.0     0.00            326.5
          SEQ#13 HIGHWAY FUEL ECON.     0.04     0.1    443.0    1.84                      20.0
          SEQ#13 4 SPD IDLE (NEUT)     12.8     0.00             42.9
          SEQ#13 4 SPD IDLE (2500)      0.0     0.00            139.0
          SEQ#13 4 SPD IDLE (NEUT)     26.3     0.00             42.8
          SEQ#13 4 SPD IDLE (DRIV)     13.1     0.00             67.7
          SEQ#13 FED 2 MODE (30)        1.3     0.00            181.4
          SEQ#13 FED 2 MODE (NEUT)     48.0     0.00             42.8

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                FUEL
VEH.                                          ---------- GRAMS / MILE ----------        ECON
 NO.  YR MAKE CID    ENGINE FAMILY           HC      CO      CO2     NOxc    CH4      MPG
----  -- ---- ---  -----------------        -----   -----   ------   -----   ----     ----
7240  77 CHEV 350 710J4     (CON'T)

          COMMENT : ADJUSTED IDLE SPEED AND MIXTURE, LEAN DROP FROM
                    550 RPM TO 500 RPM IN DRIVE. IDLE SPEED 500 RPM
                    IN DRIVE, IDLE CO .02%.

          SEQ#15 FEDERAL TEST PROC.    0.52     6.3    639.6    1.86             13.6
          SEQ#15 50 MPH CRUISE          0.3    0.00           283.1
          SEQ#15 HIGHWAY FUEL ECON.    0.04     0.1    440.5    1.81             20.1
          SEQ#15 4 SPD IDLE (NEUT)     15.8    0.01             39.5
          SEQ#15 4 SPD IDLE (2500)      0.0    0.01            135.2
          SEQ#15 4 SPD IDLE (NEUT)      9.5    0.00             45.3
          SEQ#15 4 SPD IDLE (DRIV)      1.3    0.00             63.6
          SEQ#15 FED 2 MODE (30)        1.0    0.01            176.2
          SEQ#15 FED 2 MODE (NEUT)     36.5    0.01             44.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   41  CO:  0.04   GAIN: 130

          COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR, FUEL,
                    OIL, AND CRANKCASE BREATHER FILTERS, PCV VALVE
                    AND ENGINE OIL, RESET TIMING AND IDLE SPEED.

          SEQ#16 FEDERAL TEST PROC.    0.80     9.4    658.8    1.93             13.1
          SEQ#16 50 MPH CRUISE          0.0    0.01            306.3
          SEQ#16 HIGHWAY FUEL ECON.    0.06     0.6    469.5    2.01             18.9
          SEQ#16 4 SPD IDLE (NEUT)     20.4    0.00             35.1
          SEQ#16 4 SPD IDLE (2500)      0.0    0.00            126.7
          SEQ#16 4 SPD IDLE (NEUT)      9.5    0.00             39.0
          SEQ#16 4 SPD IDLE (DRIV)      2.6    0.00             58.8
          SEQ#16 FED 2 MODE (30)        0.0    0.00            180.9
          SEQ#16 FED 2 MODE (NEUT)     41.1    0.00             36.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   26  CO:  0.08   GAIN: 110

7242  77 CHEV 350 710J4

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  289  CO:  5.03   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    2.37    40.1    566.4    2.00             13.9
          SEQ#11 50 MPH CRUISE         27.6    0.00            423.6
          SEQ#11 HIGHWAY FUEL ECON.    0.21     1.9    414.6    2.35             21.2
          SEQ#11 4 SPD IDLE (NEUT)    326.4    4.12             45.3
          SEQ#11 4 SPD IDLE (2500)     57.2    0.01            142.4
          SEQ#11 4 SPD IDLE (NEUT)    297.8    4.28             50.4
          SEQ#11 4 SPD IDLE (DRIV)    273.7    4.36             73.7
          SEQ#11 FED 2 MODE (30)       47.0    0.00            179.8
          SEQ#11 FED 2 MODE (NEUT)    379.3    5.87             46.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  312  CO:  4.90   GAIN:   0

   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2

                                                        EMISSION RESULTS                      FUEL
VEH.                                           --------- GRAMS / MILE ----------              ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO       CO2      NOxc    CH4    MPG
----   -- ---- ---  ----------------       -----   -----    -----    -----   ----   ----
7242   77 CHEV 350  710J4     (CON'T)

         COMMENT : ADJUSTED IDLE DRIVE TO 560 RPM, IDLE NEUTRAL TO
                   700 RPM. PROPANE GAIN IN NEUTRAL 50 RPM.  IDLE
                   SPEED DRIVE WOULD NOT COME DOWN TO SPEC, THROTTLE
                   PLATES CLOSED AT 560 RPM.  USED UNIVERSAL METHOD.

         SEQ#12 FEDERAL TEST PROC.      1.01     7.9    591.8     2.17          14.6
         SEQ#12 50 MPH CRUISE           0.0     0.00            354.8
         SEQ#12 HIGHWAY FUEL ECON.      0.04     0.1    434.2     2.50          20.4
         SEQ#12 4 SPD IDLE (NEUT)       2.0     0.00             56.9
         SEQ#12 4 SPD IDLE (2500)       0.0     0.00            135.5
         SEQ#12 4 SPD IDLE (NEUT)       0.3     0.00             64.6
         SEQ#12 4 SPD IDLE (DRIV)       0.0     0.00            146.0
         SEQ#12 FED 2 MODE (30)         3.6     0.00            179.1
         SEQ#12 FED 2 MODE (NEUT)       3.9     0.00             49.6

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE TO 500 RPM, IDLE NEUTRAL TO
                   570 RPM, IDLE CO NEUTRAL .38%, HC 800 PPM.  USED
                   UNIVERSAL METHOD.

         SEQ#13 FEDERAL TEST PROC.      0.72     5.8    581.3     2.12          15.0
         SEQ#13 50 MPH CRUISE           0.0     0.01            361.9
         SEQ#13 HIGHWAY FUEL ECON.      0.04     0.1    417.4     2.34          21.3
         SEQ#13 4 SPD IDLE (NEUT)       0.0     0.00             36.9
         SEQ#13 4 SPD IDLE (2500)       0.0     0.00            133.4
         SEQ#13 4 SPD IDLE (NEUT)       1.0     0.00             45.4
         SEQ#13 4 SPD IDLE (DRIV)       0.0     0.00             62.4
         SEQ#13 FED 2 MODE (30)         2.6     0.01            231.7
         SEQ#13 FED 2 MODE (NEUT)      19.4     0.01             55.1

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED TO SPEC., IDLE DRIVE 500 RPM, IDLE CO
                   .08%, HC 160 PPM.

         SEQ#15 FEDERAL TEST PROC.      0.62     3.7    598.1     2.38          14.6
         SEQ#15 50 MPH CRUISE           3.6     0.00            420.5
         SEQ#15 HIGHWAY FUEL ECON.      0.04     0.0    446.4     2.80          19.9
         SEQ#15 4 SPD IDLE (NEUT)       3.3     0.01             28.6
         SEQ#15 4 SPD IDLE (2500)       0.0     0.01            147.8
         SEQ#15 4 SPD IDLE (NEUT)       8.2     0.01             33.5
         SEQ#15 4 SPD IDLE (DRIV)       0.0     0.00             46.4
         SEQ#15 FED 2 MODE (30)         6.6     0.01            209.3
         SEQ#15 FED 2 MODE (NEUT)      25.6     0.01             43.0

         FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
         HC:   22   CO:  0.01   GAIN: 250


   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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LISTING OF TEST RESULTS
HOUSTON #2

```
                                                 EMISSION RESULTS                  FUEL
VEH.                                  ---------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC      CO     CO2     NOxc    CH4     MPG
----  -- ---- ---  -----------------  -----   -----  ------   -----   ----    ----
7242  77 CHEV 350  710J4    (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL
                     AND BREATHER FILTERS, ENGINE OIL AND PCV VALVE.
                     ADJUSTED IDLE SPEED AND TIMING.

           SEQ#16 FEDERAL TEST PROC.   0.93     2.5   608.4    2.14            14.4
           SEQ#16 50 MPH CRUISE         0.0    0.01           420.5
           SEQ#16 HIGHWAY FUEL ECON.   0.05     0.0   446.7    2.62            19.9
           SEQ#16 4 SPD IDLE (NEUT)     0.0    0.00            29.8
           SEQ#16 4 SPD IDLE (2500)     0.0    0.00           133.1
           SEQ#16 4 SPD IDLE (NEUT)     0.0    0.00            43.7
           SEQ#16 4 SPD IDLE (DRIV)     0.0    0.00            73.8
           SEQ#16 FED 2 MODE (30)       2.0    0.01           227.3
           SEQ#16 FED 2 MODE (NEUT)    20.0    0.00            54.1

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   16  CO:  0.02  GAIN: 140

7244  77 DODG 225 FD-225-2-C

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  264  CO:  0.04  GAIN:   0

           SEQ#11 FEDERAL TEST PROC.   3.36    40.6   506.0    3.32            15.3
           SEQ#11 50 MPH CRUISE       114.5    0.16           593.4
           SEQ#11 HIGHWAY FUEL ECON.   1.65    16.1   401.1    2.10            20.6
           SEQ#11 4 SPD IDLE (NEUT)   156.3    1.56            66.1
           SEQ#11 4 SPD IDLE (2500)    71.4    0.06           288.1
           SEQ#11 4 SPD IDLE (NEUT)   153.3    1.79            65.8
           SEQ#11 4 SPD IDLE (DRIV)   236.6    1.95           114.7
           SEQ#11 FED 2 MODE (30)     122.8    0.02          2603.3
           SEQ#11 FED 2 MODE (NEUT)   170.3    2.27            71.5

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 40
                     RPM.  USED UNIVERSAL PROPANE METHOD.  REROUTED
                     NOX OSAC VALVE AND REPLACED AIR CLEANER.

           SEQ#12 FEDERAL TEST PROC.   2.38    24.8   553.5    2.49            14.8
           SEQ#12 50 MPH CRUISE        88.6    0.10           668.2
           SEQ#12 HIGHWAY FUEL ECON.   1.38    14.4   419.6    1.88            19.9
           SEQ#12 4 SPD IDLE (NEUT)    36.5    0.01            95.7
           SEQ#12 4 SPD IDLE (2500)    41.1    0.03           324.5
           SEQ#12 4 SPD IDLE (NEUT)    40.4    0.01            99.3
           SEQ#12 4 SPD IDLE (DRIV)    90.6    0.01           299.2
           SEQ#12 FED 2 MODE (30)      94.6    0.02          2692.0
           SEQ#12 FED 2 MODE (NEUT)    46.0    0.01           110.8

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:  112  CO:  0.05  GAIN:  70
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                              LISTING OF TEST RESULTS
                                    HOUSTON #2
                                                       EMISSION RESULTS                  FUEL
VEH.                                            --------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY              HC      CO      CO2      NOxc    CH4    MPG
----   -- ---- ---  ----------------           -----   -----   ------   -----   ----   ----
7244   77 DODG 225 FD-225-2-C     (CON'T)

            COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE ENRICHMENT
                      900 RPM.

            SEQ#15 FEDERAL TEST PROC.     2.09    21.3    562.9    2.56           14.7
            SEQ#15 50 MPH CRUISE          90.3    0.09            672.3
            SEQ#15 HIGHWAY FUEL ECON.     1.29    11.1    426.3    1.99           19.8
            SEQ#15 4 SPD IDLE (NEUT)      91.9    0.01             69.8
            SEQ#15 4 SPD IDLE (2500)      30.2    0.03            295.2
            SEQ#15 4 SPD IDLE (NEUT)     207.1    0.01             69.3
            SEQ#15 4 SPD IDLE (DRIV)      72.4    0.01            206.5
            SEQ#15 FED 2 MODE (30)        83.0    0.02           2465.2
            SEQ#15 FED 2 MODE (NEUT)     152.7    0.00             86.7

            NO FOLLOW UP LANE TEST DONE

            COMMENT : MAJOR TUNE-UP.  REPLACED PCV VALVE, FUEL FILTER,
                      OIL AND OIL FILTER, SPARK PLUGS, CHECK VALVE TO
                      ASPIRATOR SYSTEM.  ADJUSTED TO SPEC.

            SEQ#16 FEDERAL TEST PROC.     2.60    23.4    539.9    2.48           15.2
            SEQ#16 50 MPH CRUISE         103.9    0.27            594.4
            SEQ#16 HIGHWAY FUEL ECON.     1.42    17.9    403.6    1.73           20.3
            SEQ#16 4 SPD IDLE (NEUT)     564.0    0.01             80.0
            SEQ#16 4 SPD IDLE (2500)      50.0    0.03            317.4
            SEQ#16 4 SPD IDLE (NEUT)     638.2    0.01             75.0
            SEQ#16 4 SPD IDLE (DRIV)     195.0    0.01            261.8
            SEQ#16 FED 2 MODE (30)       104.9    0.02           2711.8
            SEQ#16 FED 2 MODE (NEUT)     577.4    0.01             96.2

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:  228   CO:  0.03   GAIN: 280

7246  77 FORD 140 F2.3B1CV5

            PRELIMINARY LANE TEST:
            CAT: 4     FUEL: 4
            HC:    0   CO:  0.00   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.     1.42     7.1    368.7    2.71           23.1
            SEQ#11 50 MPH CRUISE          33.5    0.00           1355.2
            SEQ#11 HIGHWAY FUEL ECON.     0.27     0.5    262.6    5.43           33.6
            SEQ#11 4 SPD IDLE (NEUT)      83.0    0.00             54.7
            SEQ#11 4 SPD IDLE (2500)       7.2    0.00            156.7
            SEQ#11 4 SPD IDLE (NEUT)     164.7    0.00             33.7
            SEQ#11 FED 2 MODE (30)        51.0    0.01            939.3
            SEQ#11 FED 2 MODE (NEUT)     177.7    0.00             52.2

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:  165   CO:  0.00   GAIN:   0
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                  FUEL
VEH.                                      --------- GRAMS / MILE ----------            ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4      MPG
----  -- ---- --- -----------------     -----   -----   ------   -----   ----     ----
7246  77 FORD 140 F2.3B1CV5    (CON'T)

          COMMENT : IDLE RPM 850,WITH PROPANE 900 RPM.

          SEQ#12 FEDERAL TEST PROC.      1.54     6.3    352.9    2.93             24.1
          SEQ#12 50 MPH CRUISE         151.0     0.00           1290.0
          SEQ#12 HIGHWAY FUEL ECON.      0.29     0.3    272.7    5.73             32.4
          SEQ#12 4 SPD IDLE (NEUT)     368.2     0.00             66.7
          SEQ#12 4 SPD IDLE (2500)      33.8     0.00            166.0
          SEQ#12 4 SPD IDLE (NEUT)     495.1     0.00             59.3
          SEQ#12 FED 2 MODE (30)        97.9     0.11           1072.1
          SEQ#12 FED 2 MODE (NEUT)     361.7     0.00             85.4

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  486   CO:  0.00    GAIN:  60

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.      1.74     7.0    369.7    3.10             23.0
          SEQ#15 50 MPH CRUISE          42.4     0.00           1673.3
          SEQ#15 HIGHWAY FUEL ECON.      0.29     0.3    273.4    6.44             32.3
          SEQ#15 4 SPD IDLE (NEUT)     131.1     0.00             43.5
          SEQ#15 4 SPD IDLE (2500)       7.9     0.00            146.0
          SEQ#15 4 SPD IDLE (NEUT)     180.3     0.00             38.0
          SEQ#15 FED 2 MODE (30)        58.9     0.00           1257.5
          SEQ#15 FED 2 MODE (NEUT)     147.4     0.00             44.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  182   CO:  0.00    GAIN:  20

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,PCV VALVE,
                    ENGINE OIL & FILTER,AIR FUEL & CRANKCASE BREATHER
                    FILTERS.ADJUSTED IDLE SPEED & MIXTURE TO SPEC,
                    ADJUSTED CHOKE.

          SEQ#16 FEDERAL TEST PROC.      1.44     6.9    373.8    3.10             22.8
          SEQ#16 50 MPH CRUISE          43.4     0.00           1730.9
          SEQ#16 HIGHWAY FUEL ECON.      0.28     0.4    277.3    5.94             31.8
          SEQ#16 4 SPD IDLE (NEUT)     202.7     0.00             48.3
          SEQ#16 4 SPD IDLE (2500)       9.8     0.00            151.1
          SEQ#16 4 SPD IDLE (NEUT)     239.6     0.00             42.1
          SEQ#16 FED 2 MODE (30)        62.5     0.00           1252.5
          SEQ#16 FED 2 MODE (NEUT)     218.5     0.00             56.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  239   CO:  0.00    GAIN:  20
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2
                                                     EMISSION RESULTS                  FUEL
VEH.                                       --------- GRAMS / MILE ----------          ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC     CO     CO2     NOxc    CH4          MPG
----  -- ---- --- ----------------        -----  -----  ------  -----   ----         ----
7247  77 FORD 140 F2.3B1CV5

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:   50  CO:  0.10   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.    0.70    5.3   480.2   4.48                 18.1
            SEQ#11 50 MPH CRUISE        25.0    0.01          1788.5
            SEQ#11 HIGHWAY FUEL ECON.    0.24    0.2   382.2   7.57                 23.2
            SEQ#11 4 SPD IDLE (NEUT)    21.0    0.01            41.0
            SEQ#11 4 SPD IDLE (2500)     8.5    0.01           210.3
            SEQ#11 4 SPD IDLE (NEUT)    22.3    0.01            41.2
            SEQ#11 4 SPD IDLE (DRIV)    23.3    0.01            44.8
            SEQ#11 FED 2 MODE (30)      44.4    0.02          1908.7
            SEQ#11 FED 2 MODE (NEUT)    37.1    0.01            52.2

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:   23  CO:  0.01   GAIN:   0

            COMMENT : PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.    0.67    4.0   461.4   4.77                 18.9
            SEQ#12 50 MPH CRUISE        39.4    0.01          1851.1
            SEQ#12 HIGHWAY FUEL ECON.    0.24    0.2   363.9   7.40                 24.3
            SEQ#12 4 SPD IDLE (NEUT)    36.8    0.00            64.4
            SEQ#12 4 SPD IDLE (2500)    23.6    0.01           209.9
            SEQ#12 4 SPD IDLE (NEUT)    27.6    0.00            58.1
            SEQ#12 4 SPD IDLE (DRIV)    39.1    0.00            98.8
            SEQ#12 FED 2 MODE (30)      70.1    0.02          1928.8
            SEQ#12 FED 2 MODE (NEUT)    26.0    0.00            67.9

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:   26  CO:  0.00   GAIN:  60

            COMMENT : ADJUSTED TIMING,IDLE SPEED & MIXTURE TO SPEC.

            SEQ#15 FEDERAL TEST PROC.    0.57    3.8   461.5   4.26                 18.9
            SEQ#15 50 MPH CRUISE        26.6    0.01          1723.4
            SEQ#15 HIGHWAY FUEL ECON.    0.19    0.2   371.0   6.82                 23.9
            SEQ#15 4 SPD IDLE (NEUT)    24.0    0.00            51.3
            SEQ#15 4 SPD IDLE (2500)    16.1    0.01           179.3
            SEQ#15 4 SPD IDLE (NEUT)    16.1    0.00            49.3
            SEQ#15 4 SPD IDLE (DRIV)    30.9    0.00            72.4
            SEQ#15 FED 2 MODE (30)      55.6    0.02          1688.3
            SEQ#15 FED 2 MODE (NEUT)    23.6    0.00            58.6

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:   16  CO:  0.00   GAIN:  20



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                          LISTING OF TEST RESULTS
                                HOUSTON #2

                                              EMISSION RESULTS           FUEL
VEH.                                  --------- GRAMS / MILE ----------  ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC     CO     CO2   NOxc  CH4    MPG
----  -- ---- --- ------------------- -----  -----  ------  -----  ----  ----
7247  77 FORD 140 F2.3B1CV5    (CON'T)

           COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR, FUEL,
                     OIL & CRANKCASE BREATHER FILTERS, PCV VALVE,
                     ENGINE OIL ADJUSTED FAST IDLE, IDLE SPEED &
                     MIXTURE TO SPEC.

           SEQ#16 FEDERAL TEST PROC.   0.54    3.2   516.3   4.94        17.0
           SEQ#16 50 MPH CRUISE        28.3   0.01         2139.8
           SEQ#16 HIGHWAY FUEL ECON.   0.21    0.3   409.2   8.06        21.6
           SEQ#16 4 SPD IDLE (NEUT)    30.9   0.00           54.9
           SEQ#16 4 SPD IDLE (2500)    21.0   0.01          220.4
           SEQ#16 4 SPD IDLE (NEUT)    23.6   0.00           56.4
           SEQ#16 4 SPD IDLE (DRIV)    43.7   0.00          103.9
           SEQ#16 FED 2 MODE (30)      67.1   0.01         2111.7
           SEQ#16 FED 2 MODE (NEUT)    23.6   0.00           65.7

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   23  CO:  0.00   GAIN:  40

7248  77 FORD 302 F302A1CV5

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:   20  CO:  0.05   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.   1.05    6.2   723.3   5.24        12.1
           SEQ#11 50 MPH CRUISE        15.1   0.01         1367.7
           SEQ#11 HIGHWAY FUEL ECON.   0.23    0.2   503.4   6.03        17.6
           SEQ#11 4 SPD IDLE (NEUT)    33.8   0.31           48.3
           SEQ#11 4 SPD IDLE (2500)    12.5   0.00          375.1
           SEQ#11 4 SPD IDLE (NEUT)    41.7   0.00           76.4
           SEQ#11 4 SPD IDLE (DRIV)    26.9   0.00          148.8
           SEQ#11 FED 2 MODE (30)      44.1   0.00         1197.4
           SEQ#11 FED 2 MODE (NEUT)    62.5   0.00           85.9

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 650 RPMS, IDLE NEUTRAL 840
                     RPMS, 70 RPMS PROPANE GAIN.

           SEQ#12 FEDERAL TEST PROC.   0.95    6.4   710.7   5.05        12.3
           SEQ#12 50 MPH CRUISE        12.8   0.01          680.4
           SEQ#12 HIGHWAY FUEL ECON.   0.25    0.3   500.3   5.78        17.7
           SEQ#12 4 SPD IDLE (NEUT)    21.0   0.12           34.0
           SEQ#12 4 SPD IDLE (2500)     9.5   0.00          227.8
           SEQ#12 4 SPD IDLE (NEUT)    41.4   0.01           42.1
           SEQ#12 4 SPD IDLE (DRIV)    21.3   0.00           86.3
           SEQ#12 FED 2 MODE (30)      22.0   0.00          623.7
           SEQ#12 FED 2 MODE (NEUT)    23.6   0.00           44.4

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                        FUEL
VEH.                                         --------- GRAMS / MILE ----------                ECON
 NO.   YR MAKE CID   ENGINE FAMILY            HC      CO       CO2      NOxc     CH4          MPG
----   -- ---- --- ----------------          -----   -----    ------   -----    ----          ----
7248   77 FORD 302 F302A1CV5    (CON'T)

          COMMENT : IDLE SPEED AND MIXTURE SET TO SPEC.

          SEQ#15 FEDERAL TEST PROC.    1.20     7.1    709.8     5.30                 12.2
          SEQ#15 50 MPH CRUISE         13.8    0.00            833.0
          SEQ#15 HIGHWAY FUEL ECON.    0.24     0.3    494.4     5.83                 17.9
          SEQ#15 4 SPD IDLE (NEUT)     44.4    0.00             54.8
          SEQ#15 4 SPD IDLE (2500)      8.9    0.00            215.5
          SEQ#15 4 SPD IDLE (NEUT)     44.4    0.00             44.9
          SEQ#15 4 SPD IDLE (DRIV)     22.0    0.00            100.6
          SEQ#15 FED 2 MODE (30)       33.2    0.00            766.3
          SEQ#15 FED 2 MODE (NEUT)     59.2    0.00             49.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   46  CO:  0.01   GAIN: 310

7249   77 FORD 302 F302D1CV5

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  395  CO:  4.03   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    4.54    72.2    513.0     1.27                 13.8
          SEQ#11 50 MPH CRUISE        177.0    0.71            278.0
          SEQ#11 HIGHWAY FUEL ECON.    1.42    17.7    396.2     1.00                 20.7
          SEQ#11 4 SPD IDLE (NEUT)    379.3    2.77             70.7
          SEQ#11 4 SPD IDLE (2500)    121.4    0.79            106.7
          SEQ#11 4 SPD IDLE (NEUT)    359.5    3.13             74.2
          SEQ#11 4 SPD IDLE (DRIV)    377.1    3.42            189.8
          SEQ#11 FED 2 MODE (30)      249.7    0.72            213.7
          SEQ#11 FED 2 MODE (NEUT)    374.9    3.13             70.9

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE TO 650 RPM, IDLE NEUTRAL TO
                    950 RPM, PROPANE GAIN IN NEUTRAL 50 RPM.

          SEQ#12 FEDERAL TEST PROC.    2.05    33.1    575.4     1.02                 14.0
          SEQ#12 50 MPH CRUISE         76.7    0.56            176.5
          SEQ#12 HIGHWAY FUEL ECON.    0.84    13.1    415.8     0.79                 20.2
          SEQ#12 4 SPD IDLE (NEUT)     32.5    0.00            141.4
          SEQ#12 4 SPD IDLE (2500)      8.9    0.33             22.3
          SEQ#12 4 SPD IDLE (NEUT)      7.9    0.00            159.3
          SEQ#12 4 SPD IDLE (DRIV)      0.0    0.00            456.9
          SEQ#12 FED 2 MODE (30)       58.2    0.24             49.2
          SEQ#12 FED 2 MODE (NEUT)     20.7    0.02            128.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   31  CO:  0.04   GAIN: 150
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7249	77	FORD	302	F302D1CV5 (CON'T)						

COMMENT : ADJUSTED IDLE DRIVE TO 650 RPM, IDLE NEUTRAL TO 930 RPM, IDLE CO IN NEUTRAL .45%, HC 85 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	3.96	55.8	546.7	1.30		13.7
SEQ#13 50 MPH CRUISE	78.0	0.58		247.7		
SEQ#13 HIGHWAY FUEL ECON.	0.84	13.1	419.8	1.00		20.0
SEQ#13 4 SPD IDLE (NEUT)	150.4	0.49		53.0		
SEQ#13 4 SPD IDLE (2500)	11.5	0.24		30.5		
SEQ#13 4 SPD IDLE (NEUT)	220.1	1.31		78.7		
SEQ#13 4 SPD IDLE (DRIV)	302.5	1.83		271.9		
SEQ#13 FED 2 MODE (30)	174.0	0.54		173.9		
SEQ#13 FED 2 MODE (NEUT)	232.2	1.33		68.7		

NO FOLLOW UP LANE TEST DONE

COMMENT : TIMING SET TO +2. IDLE SPEED IN DRIVE 650 RPM, CO .05%.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#14 FEDERAL TEST PROC.	1.56	20.1	574.7	2.24		14.5
SEQ#14 50 MPH CRUISE	37.8	0.30		314.4		
SEQ#14 HIGHWAY FUEL ECON.	0.42	6.1	416.3	1.46		20.8
SEQ#14 4 SPD IDLE (NEUT)	4.9	0.00		7.0		
SEQ#14 4 SPD IDLE (2500)	5.9	0.00		3.0		
SEQ#14 4 SPD IDLE (NEUT)	7.2	0.00		10.0		
SEQ#14 4 SPD IDLE (DRIV)	6.6	0.00		9.8		
SEQ#14 FED 2 MODE (30)	4.9	0.00		5.0		
SEQ#14 FED 2 MODE (NEUT)	5.6	0.00		5.3		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE SPEED AND MIXTURE SET TO SPEC. IDLE ENRICHMENT 80-120 RPM GAIN.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.62	22.9	582.1	2.46		14.2
SEQ#15 50 MPH CRUISE	61.2	0.32		303.3		
SEQ#15 HIGHWAY FUEL ECON.	0.55	8.1	423.6	1.51		20.3
SEQ#15 4 SPD IDLE (NEUT)	79.4	0.01		142.4		
SEQ#15 4 SPD IDLE (2500)	18.4	0.10		87.5		
SEQ#15 4 SPD IDLE (NEUT)	64.2	0.01		189.6		
SEQ#15 4 SPD IDLE (DRIV)	27.3	0.01		359.9		
SEQ#15 FED 2 MODE (30)	29.9	0.01		383.1		
SEQ#15 FED 2 MODE (NEUT)	95.6	0.01		163.7		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 68 CO: 0.07 GAIN: 380

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                         EMISSION RESULTS                     FUEL
VEH.                                         ---------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID    ENGINE FAMILY             HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- ------------------        -----   -----   -----   -----   ----     ----
7249   77 FORD 302 F302D1CV5     (CON'T)

               COMMENT : REPLACED SPARK PLUGS, AIR, FUEL, OIL AND
                         CRANKCASE FILTERS, PCV VALVE AND ENGINE OIL.
                         TIMING AND IDLE SPEED RESET.

               SEQ#16 FEDERAL TEST PROC.      1.40    14.9    564.1    2.39              15.0
               SEQ#16 50 MPH CRUISE          18.4     0.03           478.2
               SEQ#16 HIGHWAY FUEL ECON.      0.29     3.4    425.8    2.06              20.5
               SEQ#16 4 SPD IDLE (NEUT)     105.5     0.01            78.2
               SEQ#16 4 SPD IDLE (2500)      23.3     0.01           138.3
               SEQ#16 4 SPD IDLE (NEUT)      83.3     0.01           118.5
               SEQ#16 4 SPD IDLE (DRIV)      43.4     0.01           235.5
               SEQ#16 FED 2 MODE (30)        38.5     0.01           413.5
               SEQ#16 FED 2 MODE (NEUT)     147.0     0.01           116.7

               FOLLOW UP LANE TEST:
               CAT: P    FUEL: P
               HC:   42  CO:  0.03   GAIN: 480

7250  77 FORD 351 F351MB2CV1

               PRELIMINARY LANE TEST:
               CAT: P    FUEL: P
               HC:  169  CO:  6.28   GAIN:   0

               SEQ#11 FEDERAL TEST PROC.      3.34    78.7    840.2    3.19               9.1
               SEQ#11 50 MPH CRUISE           7.9     0.01           647.0
               SEQ#11 HIGHWAY FUEL ECON.      0.42     3.7    579.8    3.93              15.1
               SEQ#11 4 SPD IDLE (NEUT)     567.0    11.42            15.1
               SEQ#11 4 SPD IDLE (2500)      13.8     0.01           158.5
               SEQ#11 4 SPD IDLE (NEUT)      52.0     2.67            33.3
               SEQ#11 4 SPD IDLE (DRIV)     463.8     0.02            10.9
               SEQ#11 FED 2 MODE (30)        34.8     0.01           214.0
               SEQ#11 FED 2 MODE (NEUT)      60.9     2.95            31.6

               NO FOLLOW UP LANE TEST DONE

               COMMENT : IDLE DRIVE 650 RPM, PROPANE GAIN 50 RPM.

               SEQ#12 FEDERAL TEST PROC.      3.66    25.5    859.5    4.13               9.7
               SEQ#12 50 MPH CRUISE          10.5     0.06           834.0
               SEQ#12 HIGHWAY FUEL ECON.      0.73     3.8    586.0    4.59              14.9
               SEQ#12 4 SPD IDLE (NEUT)      92.3     0.15            81.2
               SEQ#12 4 SPD IDLE (2500)       0.0     0.01           174.7
               SEQ#12 4 SPD IDLE (NEUT)      81.4     0.01            59.7
               SEQ#12 4 SPD IDLE (DRIV)     274.9     0.01           149.6
               SEQ#12 FED 2 MODE (30)       531.0     0.09           422.6
               SEQ#12 FED 2 MODE (NEUT)     237.2     0.02            49.9

               NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7250	77	FORD	351	F351MB2CV1 (CON'T)						

COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC. IDLE RPM 650 DRIVE, IDLE CO .45%.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	4.56	23.6	829.3	3.65		10.1
SEQ#15 50 MPH CRUISE	54.3	0.15		796.6		
SEQ#15 HIGHWAY FUEL ECON.	0.86	3.4	566.5	4.23		15.4
SEQ#15 4 SPD IDLE (NEUT)	142.0	0.06		84.2		
SEQ#15 4 SPD IDLE (2500)	0.0	0.01		182.4		
SEQ#15 4 SPD IDLE (NEUT)	27.6	0.00		64.6		
SEQ#15 4 SPD IDLE (DRIV)	341.8	0.01		151.9		
SEQ#15 FED 2 MODE (30)	414.8	0.07		439.8		
SEQ#15 FED 2 MODE (NEUT)	141.4	0.02		58.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR, FUEL, OIL AND CRANKCASE BREATHER FILTERS. REPLACED ENGINE OIL, VACUUM TEE FITTINGS, COLD AIR DUCT. ADJUSTED IDLE MIXTURE, SPEED AND TIMING.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	2.11	29.5	776.1	6.54		10.7
SEQ#16 50 MPH CRUISE	23.0	0.01		1720.9		
SEQ#16 HIGHWAY FUEL ECON.	0.28	0.4	499.6	8.20		17.7
SEQ#16 4 SPD IDLE (NEUT)	229.9	0.30		110.8		
SEQ#16 4 SPD IDLE (2500)	4.6	0.01		323.5		
SEQ#16 4 SPD IDLE (NEUT)	83.3	0.01		132.6		
SEQ#16 4 SPD IDLE (DRIV)	95.6	0.01		465.0		
SEQ#16 FED 2 MODE (30)	57.2	0.01		859.3		
SEQ#16 FED 2 MODE (NEUT)	74.1	0.01		125.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 60 CO: 0.02 GAIN: 60

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
7251	77	FORD	351	F351WC2CV4

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 422 CO: 6.38 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	4.09	74.9	588.5	5.78		12.3
SEQ#11 50 MPH CRUISE	26.9	0.00		1345.1		
SEQ#11 HIGHWAY FUEL ECON.	0.30	3.7	456.0	6.89		19.2
SEQ#11 4 SPD IDLE (NEUT)	341.8	3.90		54.8		
SEQ#11 4 SPD IDLE (2500)	32.5	0.01		360.9		
SEQ#11 4 SPD IDLE (NEUT)	341.8	4.15		55.9		
SEQ#11 4 SPD IDLE (DRIV)	320.4	6.07		64.1		
SEQ#11 FED 2 MODE (30)	74.1	0.01		1154.8		
SEQ#11 FED 2 MODE (NEUT)	386.0	4.69		52.4		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7251	77	FORD	351	F351WC2CV4 (CON'T)						

COMMENT : ADJUSTED IDLE DRIVE 600 RPMS, IDLE NEUTRAL 990 RPMS, PROPANE GAIN 130 RPMS.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	1.42	7.9	649.1	5.96		13.3
SEQ#12 50 MPH CRUISE	10.8	0.00		1487.9		
SEQ#12 HIGHWAY FUEL ECON.	0.10	0.1	453.7	6.31		19.5
SEQ#12 4 SPD IDLE (NEUT)	53.9	0.00		82.1		
SEQ#12 4 SPD IDLE (2500)	0.0	0.00		318.4		
SEQ#12 4 SPD IDLE (NEUT)	54.6	0.00		97.5		
SEQ#12 4 SPD IDLE (DRIV)	12.5	0.00		222.4		
SEQ#12 FED 2 MODE (30)	27.3	0.00		854.2		
SEQ#12 FED 2 MODE (NEUT)	204.4	0.00		87.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED TIMING TO +4, CO .05%, HC 170 PPM, 625 RPMS DRIVE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#14 FEDERAL TEST PROC.	1.07	5.2	642.9	9.97		13.6
SEQ#14 50 MPH CRUISE	21.3	0.01		1327.6		
SEQ#14 HIGHWAY FUEL ECON.	0.15	0.1	461.4	11.08		19.2
SEQ#14 4 SPD IDLE (NEUT)	22.3	0.01		88.8		
SEQ#14 4 SPD IDLE (2500)	3.6	0.00		273.0		
SEQ#14 4 SPD IDLE (NEUT)	65.2	0.00		98.3		
SEQ#14 4 SPD IDLE (DRIV)	13.8	0.00		174.2		
SEQ#14 FED 2 MODE (30)	22.3	0.01		818.9		
SEQ#14 FED 2 MODE (NEUT)	165.3	0.00		100.1		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 625 RPMS, CO .04%, HC 100 PPM, PROPANE GAIN 120 RPMS.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.09	5.7	634.6	9.96		13.7
SEQ#15 50 MPH CRUISE	26.6	0.00		1405.3		
SEQ#15 HIGHWAY FUEL ECON.	0.15	0.1	447.0	10.31		19.8
SEQ#15 4 SPD IDLE (NEUT)	43.7	0.00		114.7		
SEQ#15 4 SPD IDLE (2500)	3.3	0.00		314.4		
SEQ#15 4 SPD IDLE (NEUT)	48.7	0.00		115.4		
SEQ#15 4 SPD IDLE (DRIV)	9.8	0.00		264.9		
SEQ#15 FED 2 MODE (30)	27.3	0.00		944.4		
SEQ#15 FED 2 MODE (NEUT)	113.8	0.00		129.6		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                 FUEL
                                           ---------- GRAMS / MILE ----------         ECON
VEH.
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4        MPG
----   -- ---- --- -----------------     -----   -----   -----   -----   ----       ----
7251   77 FORD 351 F351WC2CV4    (CON'T)

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                    OIL, CRANKCASE BREATHER FILTERS, ENGINE OIL, PCV
                    VALVE.  ADJUSTED TIMING AND IDLE SPEED.  ECS
                    CONNECTIONS: RECONNECTED HOT AND COLD AIR DUCTS.

          SEQ#16 FEDERAL TEST PROC.     0.94     4.8    637.9    9.46                13.7
          SEQ#16 50 MPH CRUISE         19.0     0.01          1490.4
          SEQ#16 HIGHWAY FUEL ECON.     0.15     0.1    452.6   10.93                19.6
          SEQ#16 4 SPD IDLE (NEUT)     35.2     0.01             92.4
          SEQ#16 4 SPD IDLE (2500)      6.2     0.01            261.8
          SEQ#16 4 SPD IDLE (NEUT)     40.8     0.01             93.9
          SEQ#16 4 SPD IDLE (DRIV)      9.2     0.01            309.3
          SEQ#16 FED 2 MODE (30)       20.0     0.00           1089.6
          SEQ#16 FED 2 MODE (NEUT)     85.0     0.00            101.3

          FOLLOW UP LANE TEST:
          CAT: P      FUEL: P
          HC:    95   CO:   0.02    GAIN: 195


7252   77 FORD 400 F351MB2CV1

          PRELIMINARY LANE TEST:
          CAT: P      FUEL: P
          HC:  502    CO:   5.51    GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     4.72    92.4    650.8    7.44                10.9
          SEQ#11 50 MPH CRUISE         55.3     0.01          2632.9
          SEQ#11 HIGHWAY FUEL ECON.     0.63     6.3    502.9    9.57                17.2
          SEQ#11 4 SPD IDLE (NEUT)    630.3     4.31             54.2
          SEQ#11 4 SPD IDLE (2500)     90.0     0.01            546.9
          SEQ#11 4 SPD IDLE (NEUT)    637.1     5.06             56.1
          SEQ#11 4 SPD IDLE (DRIV)    357.2     5.91             93.1
          SEQ#11 FED 2 MODE (30)      143.4     0.25           1252.5
          SEQ#11 FED 2 MODE (NEUT)    515.2     4.75             54.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE TO 600 RPM, IDLE NEUTRAL TO
                    770 RPM, PROPANE GAIN IN NEUTRAL 70 RPM.  USED
                    UNIVERSAL METHOD.

          SEQ#12 FEDERAL TEST PROC.     0.95     6.2    751.1    1.97                11.6
          SEQ#12 50 MPH CRUISE          8.5     0.00            289.1
          SEQ#12 HIGHWAY FUEL ECON.     0.19     0.1    526.6    1.93                16.8
          SEQ#12 4 SPD IDLE (NEUT)    126.1     0.00            111.9
          SEQ#12 4 SPD IDLE (2500)     62.5     0.00            113.9
          SEQ#12 4 SPD IDLE (NEUT)     61.5     0.00            139.6
          SEQ#12 4 SPD IDLE (DRIV)     21.3     0.01            270.9
          SEQ#12 FED 2 MODE (30)       34.2     0.00            213.4
          SEQ#12 FED 2 MODE (NEUT)    208.4     0.00            111.1

          FOLLOW UP LANE TEST:
          CAT: P      FUEL: P
          HC:     4   CO:   0.01    GAIN: 160


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                     EMISSION RESULTS                           FUEL
 VEH.                                     ---------- GRAMS / MILE ----------------------        ECON
 NO.   YR MAKE CID   ENGINE FAMILY         HC      CO      CO2      NOxc     CH4                MPG
 ----  -- ---- ---  ------------------    -----   -----   ------   -----    ----               ----
 7252  77 FORD 400  F351MB2CV1    (CON'T)

            COMMENT : ADJUSTED IDLE CO .1%, HC 340 PPM, IDLE NEUTRAL
                      780 RPM, IDLE DRIVE 600 RPM.  USED UNIVERSAL
                      METHOD.

            SEQ#13 FEDERAL TEST PROC.      2.50    32.8    695.5     7.00                       11.8
            SEQ#13 50 MPH CRUISE          15.1     0.01           1916.3
            SEQ#13 HIGHWAY FUEL ECON.      0.32     2.3    470.8     7.33                       18.7
            SEQ#13 4 SPD IDLE (NEUT)     102.5     0.01             79.2
            SEQ#13 4 SPD IDLE (2500)       0.7     0.01            473.1
            SEQ#13 4 SPD IDLE (NEUT)     168.3     0.21             56.9
            SEQ#13 4 SPD IDLE (DRIV)     142.0     0.55            126.7
            SEQ#13 FED 2 MODE (30)        20.0     0.04            831.6
            SEQ#13 FED 2 MODE (NEUT)     190.7     0.04             70.7
            NO FOLLOW UP LANE TEST DONE

            COMMENT : IDLE MIXTURE AND SPEED ADJUSTED TO SPEC.

            SEQ#15 FEDERAL TEST PROC.      2.15    25.2    712.4     7.14                       11.7
            SEQ#15 50 MPH CRUISE          23.6     0.01           2081.6
            SEQ#15 HIGHWAY FUEL ECON.      0.23     1.9    509.1     8.33                       17.3
            SEQ#15 4 SPD IDLE (NEUT)     123.1     0.01             98.5
            SEQ#15 4 SPD IDLE (2500)       0.3     0.01            441.8
            SEQ#15 4 SPD IDLE (NEUT)      95.9     0.01            112.4
            SEQ#15 4 SPD IDLE (DRIV)      31.9     0.01            225.8
            SEQ#15 FED 2 MODE (30)        23.3     0.01            994.5
            SEQ#15 FED 2 MODE (NEUT)     226.5     0.01            109.8
            NO FOLLOW UP LANE TEST DONE

            COMMENT : REPLACED SPARK PLUGS, AIR, FUEL, AND OIL FILTERS,
                      ENGINE OIL, PCV VALVE AND FILTER.  SET TO SPEC.

            SEQ#16 FEDERAL TEST PROC.      1.67    22.3    691.5     6.79                       12.1
            SEQ#16 50 MPH CRUISE           9.5     0.02           2221.9
            SEQ#16 HIGHWAY FUEL ECON.      0.19     1.6    493.3     8.25                       17.9
            SEQ#16 4 SPD IDLE (NEUT)     128.4     0.01            107.0
            SEQ#16 4 SPD IDLE (2500)       0.0     0.01            422.6
            SEQ#16 4 SPD IDLE (NEUT)     135.7     0.01            117.8
            SEQ#16 4 SPD IDLE (DRIV)      41.1     0.01            247.7
            SEQ#16 FED 2 MODE (30)        20.4     0.01           1079.6
            SEQ#16 FED 2 MODE (NEUT)     295.6     0.01            107.7
            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:   155  CO:   0.02   GAIN: 130
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                     FUEL
VEH.                                      ---------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC     CO     CO2     NOxc    CH4              MPG
----   -- ---- ---  -----------------    -----  -----  ------   -----   ----             ----
7254   77 MERC 351  F351MB2CV1

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:    14  CO:  0.02   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.     0.89    8.6   771.5    1.08                     11.3
            SEQ#11 50 MPH CRUISE         13.1    0.01          236.6
            SEQ#11 HIGHWAY FUEL ECON.     0.19    0.4   508.0    1.46                     17.4
            SEQ#11 4 SPD IDLE (NEUT)    297.8    4.20           48.0
            SEQ#11 4 SPD IDLE (2500)     37.8    0.00           96.2
            SEQ#11 4 SPD IDLE (NEUT)      9.5    0.00           48.9
            SEQ#11 4 SPD IDLE (DRIV)    193.4    3.65           38.6
            SEQ#11 FED 2 MODE (30)       46.7    0.01          182.7
            SEQ#11 FED 2 MODE (NEUT)     23.3    0.01           40.7

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE DRIVE 650 RPM,PROPANE GAIN 50
                      RPM.USED UNIVERSAL PROPANE METHOD.

            SEQ#12 FEDERAL TEST PROC.     1.33    6.6   727.0    1.36                     12.0
            SEQ#12 50 MPH CRUISE          6.6    0.01          200.6
            SEQ#12 HIGHWAY FUEL ECON.     0.28    0.4   484.0    1.59                     18.3
            SEQ#12 4 SPD IDLE (NEUT)    664.4    1.79           61.8
            SEQ#12 4 SPD IDLE (2500)     60.9    0.01           89.6
            SEQ#12 4 SPD IDLE (NEUT)     87.6    0.01           78.6
            SEQ#12 4 SPD IDLE (DRIV)     36.8    0.01          180.3
            SEQ#12 FED 2 MODE (30)       33.2    0.01          171.9
            SEQ#12 FED 2 MODE (NEUT)     96.2    0.01           59.1

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE DRIVE 650 RPM.

            SEQ#15 FEDERAL TEST PROC.     1.30    9.5   750.6    1.26                     11.5
            SEQ#15 50 MPH CRUISE          7.5    0.01          208.3
            SEQ#15 HIGHWAY FUEL ECON.     0.19    0.3   500.9    1.41                     17.7
            SEQ#15 4 SPD IDLE (NEUT)     61.5    0.02           70.9
            SEQ#15 4 SPD IDLE (2500)     30.9    0.01           87.9
            SEQ#15 4 SPD IDLE (NEUT)     51.0    0.00           69.8
            SEQ#15 4 SPD IDLE (DRIV)     28.6    0.01          147.0
            SEQ#15 FED 2 MODE (30)       27.3    0.01          144.9
            SEQ#15 FED 2 MODE (NEUT)     64.8    0.00           49.1

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                         EMISSION RESULTS                      FUEL
VEH.                                         ---------- GRAMS / MILE ----------               ECON
 NO.  YR MAKE CID     ENGINE FAMILY            HC      CO     CO2     NOxc    CH4     MPG
----  -- ---- --- -------------------------  -----   -----  ------  -----   ----    ----
7254  77 MERC 351 F351MB2CV1      (CON'T)

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,FUEL FILTER,
                    PCV VALVE AND FILTER,OIL AND OIL FILTER,AIR
                    FILTER ELEMENT.ADJUSTED CHOKE NOTCHES TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    0.79     5.4   708.0    1.18            12.3
          SEQ#16 50 MPH CRUISE         11.2    0.01          197.1
          SEQ#16 HIGHWAY FUEL ECON.    0.21     0.3   486.6    1.40            18.2
          SEQ#16 4 SPD IDLE (NEUT)    429.1    1.90            62.0
          SEQ#16 4 SPD IDLE (2500)     56.3    0.01            80.8
          SEQ#16 4 SPD IDLE (NEUT)     95.6    0.00            75.0
          SEQ#16 4 SPD IDLE (DRIV)     36.5    0.00           160.3
          SEQ#16 FED 2 MODE (30)       30.6    0.01           137.3
          SEQ#16 FED 2 MODE (NEUT)    109.2    0.00            56.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   43  CO:  0.02   GAIN: 430

7255  77 OLDS 231 740E2

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  176  CO:  4.87   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    1.63    40.6   493.2    2.02            15.8
          SEQ#11 50 MPH CRUISE          9.5    0.00           250.7
          SEQ#11 HIGHWAY FUEL ECON.    0.19     2.7   358.9    2.03            24.4
          SEQ#11 4 SPD IDLE (NEUT)    101.5    2.99            34.7
          SEQ#11 4 SPD IDLE (2500)     44.7    0.04            97.0
          SEQ#11 4 SPD IDLE (NEUT)    102.9    3.42            34.8
          SEQ#11 4 SPD IDLE (DRIV)    130.4    3.12            53.6
          SEQ#11 FED 2 MODE (30)       38.1    0.11           303.3
          SEQ#11 FED 2 MODE (NEUT)    114.8    3.51            36.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE SPEED 790 RPM NEUTRAL, 600 RPM DRIVE,
                    PROPANE GAIN 50 RPM NEUTRAL.

          SEQ#12 FEDERAL TEST PROC.    1.27    18.3   492.5    2.23            16.9
          SEQ#12 50 MPH CRUISE          7.5    0.00           230.5
          SEQ#12 HIGHWAY FUEL ECON.    0.09     1.1   340.6    2.12            25.9
          SEQ#12 4 SPD IDLE (NEUT)     75.4    0.38            27.2
          SEQ#12 4 SPD IDLE (2500)     30.2    0.00            75.7
          SEQ#12 4 SPD IDLE (NEUT)     67.5    0.84            32.1
          SEQ#12 4 SPD IDLE (DRIV)     71.1    0.60           123.1
          SEQ#12 FED 2 MODE (30)       18.1    0.01           305.3
          SEQ#12 FED 2 MODE (NEUT)     93.9    0.77            33.1

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7255	77	OLDS	231	740E2 (CON'T)						

COMMENT : ADJUSTED IDLE DRIVE 600 RPMS, IDLE NEUTRAL 760 RPMS, CO .25%, HC 330 PPM. USED UNIVERSAL CO METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	0.96	13.7	504.8	2.15		16.8
SEQ#13 50 MPH CRUISE	30.9	0.00		69.8		
SEQ#13 HIGHWAY FUEL ECON.	0.08	0.7	351.1	2.11		25.2
SEQ#13 4 SPD IDLE (NEUT)	27.9	0.00		6.6		
SEQ#13 4 SPD IDLE (2500)	33.5	0.00		24.1		
SEQ#13 4 SPD IDLE (NEUT)	40.1	0.09		6.6		
SEQ#13 4 SPD IDLE (DRIV)	27.3	0.04		16.6		
SEQ#13 FED 2 MODE (30)	20.7	0.00		93.0		
SEQ#13 FED 2 MODE (NEUT)	37.1	0.07		7.4		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	0.77	10.8	498.3	2.39		17.1
SEQ#15 50 MPH CRUISE	10.2	0.00		397.3		
SEQ#15 HIGHWAY FUEL ECON.	0.06	0.6	353.2	2.41		25.1
SEQ#15 4 SPD IDLE (NEUT)	22.3	0.00		81.1		
SEQ#15 4 SPD IDLE (2500)	47.0	0.00		147.8		
SEQ#15 4 SPD IDLE (NEUT)	19.4	0.00		97.2		
SEQ#15 4 SPD IDLE (DRIV)	0.3	0.00		283.1		
SEQ#15 FED 2 MODE (30)	11.8	0.01		498.4		
SEQ#15 FED 2 MODE (NEUT)	43.4	0.00		98.3		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, OIL AND OIL FILTER, PCV VALVE AND FILTER, CANISTER FILTER, FUEL FILTER. SET TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	0.72	11.2	512.6	2.50		16.7
SEQ#16 50 MPH CRUISE	10.8	0.01		416.5		
SEQ#16 HIGHWAY FUEL ECON.	0.05	0.3	357.7	2.42		24.8
SEQ#16 4 SPD IDLE (NEUT)	28.6	0.01		99.3		
SEQ#16 4 SPD IDLE (2500)	50.3	0.01		159.3		
SEQ#16 4 SPD IDLE (NEUT)	17.1	0.01		101.6		
SEQ#16 4 SPD IDLE (DRIV)	3.6	0.01		360.9		
SEQ#16 FED 2 MODE (30)	15.8	0.01		628.8		
SEQ#16 FED 2 MODE (NEUT)	31.2	0.01		104.9		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 159 CO: 0.02 GAIN: 120

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                                 AUTOMOTIVE TESTING LABORATORIES,INC.

                                       TEXAS PILOT I/M STUDY


                                      LISTING OF TEST RESULTS
                                            HOUSTON #2

                                                        EMISSION RESULTS                     FUEL
VEH.                                          --------- GRAMS / MILE ----------              ECON
 NO.   YR MAKE CID     ENGINE FAMILY           HC      CO      CO2      NOxc    CH4    MPG
----   -- ---- ---  -----------------        -----   -----   ------   -----   ----   ----
7257   77 OLDS 350  730M4U

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC: 1101  CO:  6.30   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    3.90    37.4    625.4    2.44            12.7
          SEQ#11 50 MPH CRUISE        26.6     0.00            306.3
          SEQ#11 HIGHWAY FUEL ECON.    0.30     3.2    427.9    2.59            20.5
          SEQ#11 4 SPD IDLE (NEUT)   492.8     1.87             14.8
          SEQ#11 4 SPD IDLE (2500)    46.7     0.01             98.5
          SEQ#11 4 SPD IDLE (NEUT)   495.1     2.02             13.1
          SEQ#11 4 SPD IDLE (DRIV)   501.8     2.27             41.8
          SEQ#11 FED 2 MODE (30)      36.2     0.00            269.9
          SEQ#11 FED 2 MODE (NEUT)   546.7     1.96             13.0

          NO FOLLOW UP LANE TEST DONE


          COMMENT : ADJUSTED IDLE DRIVE 550 RPMS, IDLE NEUTRAL 680
                    RPMS, PROPANE GAIN 60 RPMS.  USED UNIVERSAL METHOD.

          SEQ#12 FEDERAL TEST PROC.    0.83     2.9    621.1    2.45            14.1
          SEQ#12 50 MPH CRUISE        19.7     0.00            624.8
          SEQ#12 HIGHWAY FUEL ECON.    0.08     0.3    426.8    2.48            20.8
          SEQ#12 4 SPD IDLE (NEUT)    10.8     0.00            106.5
          SEQ#12 4 SPD IDLE (2500)    35.2     0.00            200.1
          SEQ#12 4 SPD IDLE (NEUT)    15.1     0.00            141.6
          SEQ#12 4 SPD IDLE (DRIV)    12.1     0.00            509.5
          SEQ#12 FED 2 MODE (30)      49.7     0.00            400.3
          SEQ#12 FED 2 MODE (NEUT)    60.9     0.00             92.1

          NO FOLLOW UP LANE TEST DONE


          COMMENT : IDLE NEUTRAL 640 RPMS, IDLE CO .02%, IDLE HC 30
                    PPM.

          SEQ#15 FEDERAL TEST PROC.    1.03     3.1    645.0    2.58            13.6
          SEQ#15 50 MPH CRUISE        22.7     0.01            655.1
          SEQ#15 HIGHWAY FUEL ECON.    0.09     0.5    425.1    2.56            20.8
          SEQ#15 4 SPD IDLE (NEUT)     9.8     0.01            103.4
          SEQ#15 4 SPD IDLE (2500)    47.7     0.01            194.5
          SEQ#15 4 SPD IDLE (NEUT)    18.4     0.00            120.3
          SEQ#15 4 SPD IDLE (DRIV)    13.1     0.00            418.5
          SEQ#15 FED 2 MODE (30)      62.2     0.01            538.8
          SEQ#15 FED 2 MODE (NEUT)    81.4     0.00            118.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   15  CO:  0.02   GAIN: 140




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                                 TEXAS PILOT I/M STUDY


                                LISTING OF TEST RESULTS
                                      HOUSTON #2

                                                        EMISSION RESULTS               FUEL
VEH.                                         --------- GRAMS / MILE ----------        ECON
 NO.  YR MAKE CID     ENGINE FAMILY           HC      CO      CO2     NOxc    CH4      MPG
----  -- ---- --- ------------------------   -----   -----   ------   -----   ----     ----
7263  77 PONT 231 740E2

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:  143  CO:  5.60    GAIN:   0

           SEQ#11 FEDERAL TEST PROC.      1.67    58.9    514.0    5.74             14.5
           SEQ#11 50 MPH CRUISE           13.8    0.12           2356.8
           SEQ#11 HIGHWAY FUEL ECON.      0.25     7.4    359.4    5.99             23.9
           SEQ#11 4 SPD IDLE (NEUT)      111.8    4.97             61.3
           SEQ#11 4 SPD IDLE (2500)      130.4    0.13            537.8
           SEQ#11 4 SPD IDLE (NEUT)      126.1    5.19             67.8
           SEQ#11 4 SPD IDLE (DRIV)      152.7    5.09            101.3
           SEQ#11 FED 2 MODE (30)         62.2    0.29           2089.1
           SEQ#11 FED 2 MODE (NEUT)      122.8    5.22             74.4

           NO FOLLOW UP LANE TEST DONE

           COMMENT : PROPANE PRE-ADJUSTMENT, 0 GAIN, 50 RPM GAIN WAS
                     ACHIEVED AT STEP 8C OF PROPANE ADJUSTMENT
                     PROCEDURE A-2.  IDLE NEUTRAL 850 RPM, PROPANE
                     ENRICHED NEUTRAL 900 RPM.

           SEQ#12 FEDERAL TEST PROC.      2.10    27.2    498.9    5.88             16.2
           SEQ#12 50 MPH CRUISE           12.8    0.35           1475.4
           SEQ#12 HIGHWAY FUEL ECON.      0.33     6.2    358.5    5.62             24.0
           SEQ#12 4 SPD IDLE (NEUT)      455.4    0.19             87.5
           SEQ#12 4 SPD IDLE (2500)       26.6    0.02            534.8
           SEQ#12 4 SPD IDLE (NEUT)      951.0    0.26             39.3
           SEQ#12 4 SPD IDLE (DRIV)      633.7    0.50            279.0
           SEQ#12 FED 2 MODE (30)         10.5    0.14           1199.9
           SEQ#12 FED 2 MODE (NEUT)     1172.7    0.18             30.0

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED TIMING AND IDLE SPEED TO SPEC, CO .3%,
                     IDLE DRIVE 600 RPM, TIMING +12.  NOTE:  EXTREMELY
                     ROUGH IDLE IS EXPERIENCED AT THESE SETTINGS.

           SEQ#14 FEDERAL TEST PROC.      3.32    25.7    534.0    8.44             15.2
           SEQ#14 50 MPH CRUISE            6.2    0.33           2001.8
           SEQ#14 HIGHWAY FUEL ECON.      0.39     4.5    390.9    8.54             22.2
           SEQ#14 4 SPD IDLE (NEUT)      649.5    0.28            209.3
           SEQ#14 4 SPD IDLE (2500)       97.9    0.04            901.8
           SEQ#14 4 SPD IDLE (NEUT)      791.6    0.32            140.3
           SEQ#14 4 SPD IDLE (DRIV)      704.2    0.91            781.5
           SEQ#14 FED 2 MODE (30)          8.2    0.10           2248.3
           SEQ#14 FED 2 MODE (NEUT)     1579.6    0.22             73.4

           NO FOLLOW UP LANE TEST DONE


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS              FUEL
VEH.                                         --------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC       CO       CO2      NOxc    CH4   MPG
----   -- ---- --- -----------------       -----    -----    -----    -----   ----  ----
7263   77 PONT 231 740E2      (CON'T)

           COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.       2.07     15.2     531.1     8.08          15.8
           SEQ#15 50 MPH CRUISE            8.9      0.85             1856.1
           SEQ#15 HIGHWAY FUEL ECON.       0.30      2.6     387.4     8.27          22.6
           SEQ#15 4 SPD IDLE (NEUT)       31.9      0.02              300.2
           SEQ#15 4 SPD IDLE (2500)       54.6      0.03              801.6
           SEQ#15 4 SPD IDLE (NEUT)      148.0      0.15              165.2
           SEQ#15 4 SPD IDLE (DRIV)      182.7      0.22              641.9
           SEQ#15 FED 2 MODE (30)          3.3      0.03             2948.4
           SEQ#15 FED 2 MODE (NEUT)      308.0      0.10               95.9

           NO FOLLOW UP LANE TEST DONE

           COMMENT : MAJOR TUNE-UP.  REPLACED AIR FILTER, PCV VALVE,
                     EGR VALVE, FUEL FILTER, SPARK PLUGS, OIL AND OI
                     FILTER.

           SEQ#16 FEDERAL TEST PROC.       1.43     23.1     509.1     4.24          16.1
           SEQ#16 50 MPH CRUISE            3.7      0.04              421.6
           SEQ#16 HIGHWAY FUEL ECON.       0.20      2.0     345.1     2.49          25.4
           SEQ#16 4 SPD IDLE (NEUT)      109.8      0.10              126.0
           SEQ#16 4 SPD IDLE (2500)      187.7      0.01              299.2
           SEQ#16 4 SPD IDLE (NEUT)      248.3      0.19               98.0
           SEQ#16 4 SPD IDLE (DRIV)      153.3      2.62              912.9
           SEQ#16 FED 2 MODE (30)          8.9      0.01              884.6
           SEQ#16 FED 2 MODE (NEUT)      363.9      0.09               54.4

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:  301   CO:  0.10   GAIN: 102

7268  77 DATS 146 L240F

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:  450   CO:  0.30   GAIN:  30

           SEQ#11 FEDERAL TEST PROC.       2.27     12.1     513.6     2.18          16.4
           SEQ#11 50 MPH CRUISE           61.5      0.19             1172.3
           SEQ#11 HIGHWAY FUEL ECON.       1.08      4.2     349.4     3.82          24.7
           SEQ#11 4 SPD IDLE (NEUT)     1296.0      0.21               31.2
           SEQ#11 4 SPD IDLE (2500)       97.2      0.16              121.6
           SEQ#11 4 SPD IDLE (NEUT)      927.3      0.24               30.4
           SEQ#11 FED 2 MODE (30)         53.0      0.18              280.0
           SEQ#11 FED 2 MODE (NEUT)      409.5      0.24               33.8

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:  920   CO:  0.24   GAIN:  60
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

```
                                                      EMISSION RESULTS                        FUEL
VEH.                                       ---------- GRAMS / MILE -----------                ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC       CO       CO2     NOxc     CH4            MPG
----  -- ---- --- ------------------      -----    -----    ------   -----    ----           ----
7268  77 DATS 146 L240F     (CON'T)

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.        2.01     9.5     522.2    2.20                     16.3
          SEQ#15 50 MPH CRUISE            68.5      0.19           1425.3
          SEQ#15 HIGHWAY FUEL ECON.        1.11     4.0     344.7    4.40                     25.0
          SEQ#15 4 SPD IDLE (NEUT)       656.3      0.19             29.1
          SEQ#15 4 SPD IDLE (2500)        89.6      0.18            105.7
          SEQ#15 4 SPD IDLE (NEUT)       477.4      0.18             30.4
          SEQ#15 FED 2 MODE (30)          41.1      0.18            295.2
          SEQ#15 FED 2 MODE (NEUT)       338.0      0.19             32.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC: 4860  CO:  0.18   GAIN: 166

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR & FUEL
                    FILTERS, OIL & OIL FILTER.  ADJUSTED IDLE SPEED &
                    MIXTURE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.        1.79     9.4     495.2    2.68                     17.2
          SEQ#16 50 MPH CRUISE            59.2      0.18           1285.0
          SEQ#16 HIGHWAY FUEL ECON.        1.06     4.1     351.5    4.54                     24.6
          SEQ#16 4 SPD IDLE (NEUT)       729.3      0.19             29.5
          SEQ#16 4 SPD IDLE (2500)        61.5      0.19             95.4
          SEQ#16 4 SPD IDLE (NEUT)       383.4      0.19             30.9
          SEQ#16 FED 2 MODE (30)          20.7      0.19            268.9
          SEQ#16 FED 2 MODE (NEUT)       240.9      0.19             32.8

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  377  CO:  0.19   GAIN: 180

7269  77 HOND 076 77EB

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   41  CO:  1.19   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.        1.04    12.8     323.0    2.38                     25.6
          SEQ#11 50 MPH CRUISE            23.6      0.42            986.9
          SEQ#11 HIGHWAY FUEL ECON.        0.35     7.1     252.0    3.24                     33.6
          SEQ#11 4 SPD IDLE (NEUT)        56.3      0.82             24.6
          SEQ#11 4 SPD IDLE (2500)        23.6      0.80             22.8
          SEQ#11 4 SPD IDLE (NEUT)        54.3      0.81             25.4
          SEQ#11 FED 2 MODE (30)          68.5      1.10           1089.6
          SEQ#11 FED 2 MODE (NEUT)        47.7      0.82             33.0

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                         EMISSION RESULTS                          FUEL
VEH.                                          --------- GRAMS / MILE ----------                    ECON
 NO.  YR MAKE CID     ENGINE FAMILY            HC      CO      CO2     NOxc     CH4                MPG
----  -- ---- --- ------------------         -----   -----   ------   -----    ----               ----
7269  77 HOND 076 77EB      (CON'T)

        COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 50
                  RPM.  USED UNIVERSAL PROPANE METHOD.

        SEQ#12 FEDERAL TEST PROC.     1.62    11.5    336.8     2.48                      24.6
        SEQ#12 50 MPH CRUISE          20.7    0.43             944.4
        SEQ#12 HIGHWAY FUEL ECON.     0.49     6.5    240.5     3.30                      35.2
        SEQ#12 4 SPD IDLE (NEUT)      61.5    0.14              32.3
        SEQ#12 4 SPD IDLE (2500)      22.0    0.73              23.4
        SEQ#12 4 SPD IDLE (NEUT)      68.5    0.13              32.5
        SEQ#12 FED 2 MODE (30)        66.5    0.67            1202.4
        SEQ#12 FED 2 MODE (NEUT)      60.5    0.17              41.6

        NO FOLLOW UP LANE TEST DONE

        COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, CO .25%, HC 80 PPM.

        SEQ#15 FEDERAL TEST PROC.     1.85    11.5    308.7     2.02                      26.7
        SEQ#15 50 MPH CRUISE          20.7    0.41             949.4
        SEQ#15 HIGHWAY FUEL ECON.     0.50     6.3    234.7     2.66                      36.1
        SEQ#15 4 SPD IDLE (NEUT)      64.2    0.08              30.6
        SEQ#15 4 SPD IDLE (2500)      24.6    0.63              27.3
        SEQ#15 4 SPD IDLE (NEUT)      63.2    0.08              29.4
        SEQ#15 FED 2 MODE (30)        23.6    0.58             590.4
        SEQ#15 FED 2 MODE (NEUT)      60.5    0.09              36.0

        NO FOLLOW UP LANE TEST DONE

        COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                  FILTER, FUEL FILTER, ADJUSTED TIMING TO
                  MANUFACTURER SPEC, REPLACED AIR FILTER ELEMENT.

        SEQ#16 FEDERAL TEST PROC.     2.02    10.6    326.9     1.74                      25.4
        SEQ#16 50 MPH CRUISE          11.8    0.40             602.5
        SEQ#16 HIGHWAY FUEL ECON.     0.45     5.8    251.9     2.27                      33.8
        SEQ#16 4 SPD IDLE (NEUT)     127.4    0.09              35.2
        SEQ#16 4 SPD IDLE (2500)      15.8    0.56              29.2
        SEQ#16 4 SPD IDLE (NEUT)     108.5    0.08              34.8
        SEQ#16 FED 2 MODE (30)        54.3    0.82             796.6
        SEQ#16 FED 2 MODE (NEUT)      80.0    0.10              42.1

        FOLLOW UP LANE TEST:
        CAT: P     FUEL: P
        HC:    53  CO:  0.16   GAIN:  95
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                 FUEL
VEH.                                    --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2     NOxc     CH4      MPG
----   -- ---- --- ----------------    -----   -----   ------   -----    ----      ---
7270   77 HOND 098 77ED-2

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:    66  CO:  0.25   GAIN:    0

          SEQ#11 FEDERAL TEST PROC.     1.16     8.8    312.6    2.45              26.9
          SEQ#11 50 MPH CRUISE          17.7    0.25           2790.7
          SEQ#11 HIGHWAY FUEL ECON.     0.13     2.2    240.6    3.62              36.3
          SEQ#11 4 SPD IDLE (NEUT)      82.0    0.18             97.5
          SEQ#11 4 SPD IDLE (2500)      10.2    0.16            182.9
          SEQ#11 4 SPD IDLE (NEUT)      42.7    0.23             91.8
          SEQ#11 FED 2 MODE (30).       62.9    0.18           3688.0
          SEQ#11 FED 2 MODE (NEUT)      66.8    0.22            109.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE NEUTRAL 800 RPM, PROPANE GAIN 60
                    RPM.  USED UNIVERSAL PROPANE METHOD.

          SEQ#12 FEDERAL TEST PROC.     1.18     8.7    312.7    2.50              26.9
          SEQ#12 50 MPH CRUISE           3.9    0.22           2189.3
          SEQ#12 HIGHWAY FUEL ECON.     0.17     2.4    231.0    3.55              37.7
          SEQ#12 4 SPD IDLE (NEUT)     109.5    0.16             86.2
          SEQ#12 4 SPD IDLE (2500)       7.5    0.15            184.0
          SEQ#12 4 SPD IDLE (NEUT)      42.7    0.20             73.4
          SEQ#12 FED 2 MODE (30)        69.5    0.17           3549.9
          SEQ#12 FED 2 MODE (NEUT)      65.8    0.18             99.5

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE NEUTRAL 800 RPM, CO .17%, HC 145 PPM.

          SEQ#15 FEDERAL TEST PROC.     1.25     9.2    302.6    2.51              27.6
          SEQ#15 50 MPH CRUISE           3.3    0.22           2026.5
          SEQ#15 HIGHWAY FUEL ECON.     0.17     2.4    238.7    3.54              36.5
          SEQ#15 4 SPD IDLE (NEUT)     105.2    0.16             70.9
          SEQ#15 4 SPD IDLE (2500)       0.0    0.10            190.1
          SEQ#15 4 SPD IDLE (NEUT)      41.1    0.21             76.7
          SEQ#15 FED 2 MODE (30)        62.2    0.18           3165.4
          SEQ#15 FED 2 MODE (NEUT)      70.8    0.17             92.5

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                  EMISSION RESULTS                FUEL
VEH.                                   ---------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- -----------------   -----   -----   -----   -----   ----     ----
7270   77 HOND 098 77ED-2    (CON'T)

          COMMENT : MAJOR TUNE-UP.  PARTS INCLUDED SPARK PLUGS, AIR
                    AND FUEL FILTERS, POINTS AND CONDENSER, ENGINE
                    OIL.  TIMING MIXTURE, IDLE SPEED AND DWELL ANGLE
                    WERE ADJUSTED.

          SEQ#16 FEDERAL TEST PROC.    1.14     9.2   316.4    2.42             26.5
          SEQ#16 50 MPH CRUISE          0.7    0.21          1906.2
          SEQ#16 HIGHWAY FUEL ECON.    0.15     2.3   241.6    3.34             36.1
          SEQ#16 4 SPD IDLE (NEUT)    104.2    0.15            76.2
          SEQ#16 4 SPD IDLE (2500)      7.5    0.18           171.9
          SEQ#16 4 SPD IDLE (NEUT)     74.1    0.18            60.3
          SEQ#16 FED 2 MODE (30)       55.6    0.19          2978.0
          SEQ#16 FED 2 MODE (NEUT)     62.2    0.18            79.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  317  CO:  0.27   GAIN:  70


7272  77 TOYO 134 20R(F)

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  445  CO:  1.20   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    3.47    84.8   365.9    2.17             17.4
          SEQ#11 50 MPH CRUISE        180.7    3.23          1485.4
          SEQ#11 HIGHWAY FUEL ECON.    1.40    40.4   249.0    3.05             28.0
          SEQ#11 4 SPD IDLE (NEUT)    723.8    0.90            81.1
          SEQ#11 4 SPD IDLE (2500)   1402.1    4.61           392.2
          SEQ#11 4 SPD IDLE (NEUT)    580.5    1.28            77.3
          SEQ#11 FED 2 MODE (30)      249.0    3.76          1087.1
          SEQ#11 FED 2 MODE (NEUT)    495.1    1.45            76.1

          NO FOLLOW UP LANE TEST DONE


          COMMENT : ADJUSTED IDLE TO 800 RPM, PROPANE GAIN 200 RPM
                    AND CLEANED AIR FILTER ELEMENT.  ENGINE IDLED
                    ROUGH.

          SEQ#12 FEDERAL TEST PROC.    3.51    84.0   365.5    2.12             17.4
          SEQ#12 50 MPH CRUISE        179.0    4.11          1007.0
          SEQ#12 HIGHWAY FUEL ECON.    1.45    44.0   229.7    2.37             29.2
          SEQ#12 4 SPD IDLE (NEUT)    368.3    1.25            84.8
          SEQ#12 4 SPD IDLE (2500)   1628.5    4.36           369.0
          SEQ#12 4 SPD IDLE (NEUT)    399.3    1.58            80.8
          SEQ#12 FED 2 MODE (30)      234.9    4.31           806.6
          SEQ#12 FED 2 MODE (NEUT)    282.5    1.64            79.6

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7272	77	TOYO	134	20R(F) (CON'T)						

COMMENT : ADJUSTED IDLE MIXTURE TO .5% CO.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	3.48	82.1	359.1	2.07		17.8
SEQ#13 50 MPH CRUISE	155.0	3.92		1104.7		
SEQ#13 HIGHWAY FUEL ECON.	1.43	43.2	231.3	2.44		29.2
SEQ#13 4 SPD IDLE (NEUT)	445.9	0.87		91.2		
SEQ#13 4 SPD IDLE (2500)	1811.1	4.46		398.3		
SEQ#13 4 SPD IDLE (NEUT)	501.8	1.09		86.9		
SEQ#13 FED 2 MODE (30)	229.2	4.27		861.7		
SEQ#13 FED 2 MODE (NEUT)	499.6	0.66		103.4		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE MIXTURE AND SPEED ADJUSTED TO MANUFACTURERS SPEC. IDLE SPEED 800 RPM, IDLE CO .9%.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	3.64	86.8	366.9	2.09		17.2
SEQ#15 50 MPH CRUISE	184.4	3.89		1122.2		
SEQ#15 HIGHWAY FUEL ECON.	1.51	42.1	233.0	2.44		29.2
SEQ#15 4 SPD IDLE (NEUT)	700.9	0.62		86.9		
SEQ#15 4 SPD IDLE (2500)	1635.9	4.03		431.7		
SEQ#15 4 SPD IDLE (NEUT)	744.4	0.95		82.6		
SEQ#15 FED 2 MODE (30)	282.5	4.25		901.8		
SEQ#15 FED 2 MODE (NEUT)	508.5	1.15		80.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : REPLACED SPARK PLUGS, AIR, FUEL AND OIL FILTERS, ROTOR AND POINTS, AND PCV VALVE. SET TO MANUFACTURERS SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	2.86	82.0	364.0	1.26		17.7
SEQ#16 50 MPH CRUISE	156.7	4.00		677.3		
SEQ#16 HIGHWAY FUEL ECON.	1.30	42.6	225.7	1.62		29.9
SEQ#16 4 SPD IDLE (NEUT)	185.4	1.88		63.6		
SEQ#16 4 SPD IDLE (2500)	137.0	4.82		163.4		
SEQ#16 4 SPD IDLE (NEUT)	197.0	2.01		60.8		
SEQ#16 FED 2 MODE (30)	165.3	3.83		589.4		
SEQ#16 FED 2 MODE (NEUT)	174.7	1.15		65.0		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 168 CO: 1.88 GAIN: 40

[NOTE· FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

					EMISSION RESULTS GRAMS / MILE					FUEL ECON
VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	HC	CO	CO_2	NOxc	CH4	MPG
7273	77	TOYO	134	20R(F)						
				PRELIMINARY LANE TEST: CAT: P FUEL: P HC: 20 CO: 0.59 GAIN: 0						
				SEQ#11 FEDERAL TEST PROC.	0.55	17.1	456.2	1.39		18.3
				SEQ#11 50 MPH CRUISE	0.3	0.16		230.9		
				SEQ#11 HIGHWAY FUEL ECON.	0.18	5.0	349.4	1.98		24.8
				SEQ#11 4 SPD IDLE (NEUT)	11.8	0.42		10.0		
				SEQ#11 4 SPD IDLE (2500)	0.7	0.12		27.7		
				SEQ#11 4 SPD IDLE (NEUT)	10.2	0.40		11.9		
				SEQ#11 4 SPD IDLE (DRIV)	32.2	0.98		18.8		
				SEQ#11 FED 2 MODE (30)	2.0	0.17		137.0		
				SEQ#11 FED 2 MODE (NEUT)	10.8	0.41		12.4		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : IDLE SPEED 850 RPM NEUTRAL, PROPANE GAIN 50 RPM.						
				SEQ#12 FEDERAL TEST PROC.	0.67	13.7	465.8	1.52		18.1
				SEQ#12 50 MPH CRUISE	3.3	0.14		219.1		
				SEQ#12 HIGHWAY FUEL ECON.	0.23	5.2	352.7	2.13		24.5
				SEQ#12 4 SPD IDLE (NEUT)	28.3	0.13		19.9		
				SEQ#12 4 SPD IDLE (2500)	8.9	0.13		22.9		
				SEQ#12 4 SPD IDLE (NEUT)	28.9	0.14		20.3		
				SEQ#12 4 SPD IDLE (DRIV)	45.4	0.23		91.7		
				SEQ#12 FED 2 MODE (30)	8.5	0.17		124.4		
				SEQ#12 FED 2 MODE (NEUT)	21.0	0.15		20.9		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.						
				SEQ#15 FEDERAL TEST PROC.	0.86	14.7	460.1	1.40		18.3
				SEQ#15 50 MPH CRUISE	10.8	0.14		204.2		
				SEQ#15 HIGHWAY FUEL ECON.	0.32	4.9	351.3	1.91		24.7
				SEQ#15 4 SPD IDLE (NEUT)	34.5	0.08		24.4		
				SEQ#15 4 SPD IDLE (2500)	6.6	0.12		23.7		
				SEQ#15 4 SPD IDLE (NEUT)	50.0	0.08		27.3		
				SEQ#15 4 SPD IDLE (DRIV)	44.4	0.12		104.7		
				SEQ#15 FED 2 MODE (30)	6.6	0.19		117.5		
				SEQ#15 FED 2 MODE (NEUT)	51.3	0.09		27.6		
				NO FOLLOW UP LANE TEST DONE						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                               TEXAS PILOT I/M STUDY


                               LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                  EMISSION RESULTS                     FUEL
VEH.                                    --------- GRAMS / MILE ----------              ECON
 NO.   YR MAKE CID   ENGINE FAMILY       HC      CO       CO2      NOxc     CH4         MPG
----   -- ---- --- ----------------    -----   -----    ------    -----    ----        ----
7273   77 TOYO 134 20R(F)    (CON'T)

             COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, POINTS, AIR,
                        FUEL AND OIL FILTERS, CRANKCASE OIL. TIMING AND
                       IDLE SPEED WERE SET TO SPEC.  DWELL WAS ALSO
                       ADJUSTED.

             SEQ#16 FEDERAL TEST PROC.    0.82    13.0    452.5    1.43              18.7
             SEQ#16 50 MPH CRUISE          3.9    0.24            412.5
             SEQ#16 HIGHWAY FUEL ECON.    0.31     4.9    346.1    2.11              25.0
             SEQ#16 4 SPD IDLE (NEUT)     37.8    0.20              38.7
             SEQ#16 4 SPD IDLE (2500)      9.8    0.21              45.2
             SEQ#16 4 SPD IDLE (NEUT)     47.4    0.18              41.9
             SEQ#16 4 SPD IDLE (DRIV)     72.1    0.34             159.6
             SEQ#16 FED 2 MODE (30)        4.6    0.35             202.9
             SEQ#16 FED 2 MODE (NEUT)     41.4    0.19              46.1

             FOLLOW UP LANE TEST:
             CAT: P    FUEL: P
             HC:   36  CO:  0.14   GAIN:  80


7275  77 VOLK 097 FAMILY 37

             PRELIMINARY LANE TEST:
             CAT: P    FUEL: P
             HC:  171  CO:  6.16   GAIN:   0

             SEQ#11 FEDERAL TEST PROC.    2.24    27.6    346.0    3.78              22.4
             SEQ#11 50 MPH CRUISE         96.2    0.67            2176.8
             SEQ#11 HIGHWAY FUEL ECON.    1.25    10.8    243.0    4.15              33.6
             SEQ#11 4 SPD IDLE (NEUT)    170.0    5.22              67.2
             SEQ#11 4 SPD IDLE (2500)    117.1    1.41             361.9
             SEQ#11 4 SPD IDLE (NEUT)    172.3    4.84              67.9
             SEQ#11 FED 2 MODE (30)      115.5    0.58            1961.4
             SEQ#11 FED 2 MODE (NEUT)    158.3    4.72              74.1

             NO FOLLOW UP LANE TEST DONE


             COMMENT : IDLE DRIVE 925 RPM, PROPANE ENRICHED RPM 980.

             SEQ#12 FEDERAL TEST PROC.    1.60    14.5    398.9    4.17              20.8
             SEQ#12 50 MPH CRUISE         81.4    0.44            2149.2
             SEQ#12 HIGHWAY FUEL ECON.    1.04     7.8    259.7    4.25              32.2
             SEQ#12 4 SPD IDLE (NEUT)     80.7    2.52             100.1
             SEQ#12 4 SPD IDLE (2500)     36.5    0.54             224.2
             SEQ#12 4 SPD IDLE (NEUT)     67.5    1.54             108.8
             SEQ#12 FED 2 MODE (30)       90.9    1.21            2141.7
             SEQ#12 FED 2 MODE (NEUT)     64.2    2.22             115.4

             NO FOLLOW UP LANE TEST DONE




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE					FUEL ECON
					HC	CO	CO_2	NO_{xc}	CH_4	MPG
7275	77	VOLK	097	FAMILY 37 (CON'T)						
				COMMENT : ADJUSTED IDLE CO TO .4% AT 925 RPM.						
				SEQ#13 FEDERAL TEST PROC.	1.15	6.4	403.3	4.08		21.3
				SEQ#13 50 MPH CRUISE	71.4	0.42		2084.1		
				SEQ#13 HIGHWAY FUEL ECON.	0.95	4.0	273.3	5.02		31.4
				SEQ#13 4 SPD IDLE (NEUT)	31.2	0.36		120.6		
				SEQ#13 4 SPD IDLE (2500)	22.7	0.16		220.4		
				SEQ#13 4 SPD IDLE (NEUT)	27.3	0.35		120.8		
				SEQ#13 FED 2 MODE (30)	71.8	0.16		1928.8		
				SEQ#13 FED 2 MODE (NEUT)	30.6	0.29		124.4		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO SPEC.						
				SEQ#15 FEDERAL TEST PROC.	1.29	9.0	397.8	4.12		21.3
				SEQ#15 50 MPH CRUISE	83.7	0.46		2259.4		
				SEQ#15 HIGHWAY FUEL ECON.	1.02	5.9	267.4	4.51		31.7
				SEQ#15 4 SPD IDLE (NEUT)	67.1	1.96		105.4		
				SEQ#15 4 SPD IDLE (2500)	22.0	0.30		204.2		
				SEQ#15 4 SPD IDLE (NEUT)	51.6	1.06		107.5		
				SEQ#15 FED 2 MODE (30)	86.0	0.21		2051.5		
				SEQ#15 FED 2 MODE (NEUT)	46.4	0.91		115.7		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 56 CO: 1.65 GAIN: 95						
				COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, FUEL FILTER, OIL AND OIL FILTER, AIR FILTER, DISTRIBUTOR CAP, POINTS, ROTOR, SET TO SPEC, REPAIRED EGR VALVE.						
				SEQ#16 FEDERAL TEST PROC.	1.33	8.7	409.1	4.80		20.8
				SEQ#16 50 MPH CRUISE	90.3	0.53		2534.3		
				SEQ#16 HIGHWAY FUEL ECON.	1.00	6.2	264.2	5.17		32.0
				SEQ#16 4 SPD IDLE (NEUT)	61.2	1.20		177.3		
				SEQ#16 4 SPD IDLE (2500)	41.4	0.79		198.1		
				SEQ#16 4 SPD IDLE (NEUT)	53.6	0.86		158.3		
				SEQ#16 FED 2 MODE (30)	99.6	0.27		2287.7		
				SEQ#16 FED 2 MODE (NEUT)	54.9	0.91		128.5		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 47 CO: 1.13 GAIN: 120						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                  EMISSION RESULTS               FUEL
VEH.                                     --------- GRAMS / MILE ----------       ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc   CH4      MPG
----  -- ---- --- ----------------     -----   -----   ------   -----   ----     ----
0279  80 CHEV 173 01C2EY/0B6-1

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:    10  CO:  0.05   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.    0.32     3.6   467.8    1.38              18.7
         SEQ#11 50 MPH CRUISE          3.9    0.00           317.4
         SEQ#11 HIGHWAY FUEL ECON.    0.05     0.0   322.6    1.21              27.5
         SEQ#11 4 SPD IDLE (NEUT)      1.6    0.00            32.0
         SEQ#11 4 SPD IDLE (2500)    194.4    6.43            36.9
         SEQ#11 4 SPD IDLE (NEUT)      2.3    0.01            64.7
         SEQ#11 4 SPD IDLE (DRIV)      0.7    0.00            89.6
         SEQ#11 FED 2 MODE (30)        0.0    0.00           188.0
         SEQ#11 FED 2 MODE (NEUT)      0.0    0.00            69.9

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:    12  CO:  0.01   GAIN:  20

         COMMENT : PROPANE GAIN 30 RPM.  CHECKED HOSE ROUTINGS, AIR
                   FILTER, CHOKE, HEATED INTAKE SYS, PCV FLOW AND
                   ENGINE OIL FOR GAS, NO ADJ MADE.

         SEQ#18 FEDERAL TEST PROC.    0.35     4.5   488.9    1.51              17.9
         SEQ#18 50 MPH CRUISE         10.2    0.00           302.3
         SEQ#18 HIGHWAY FUEL ECON.    0.06     0.3   331.2    1.28              26.7
         SEQ#18 4 SPD IDLE (NEUT)      3.6    0.00            40.4
         SEQ#18 4 SPD IDLE (2500)    188.4    6.50            38.4
         SEQ#18 4 SPD IDLE (NEUT)      3.3    0.01            71.0
         SEQ#18 4 SPD IDLE (DRIV)      2.3    0.01           106.7
         SEQ#18 FED 2 MODE (30)        0.0    0.00            95.3
         SEQ#18 FED 2 MODE (NEUT)      0.0    0.00            69.8

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:    12  CO:  0.01   GAIN:  30

0301  80 FORD 255 4.2/5.0BJF

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:     0  CO:  0.01   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.    0.31     3.6   608.0    0.85              14.4
         SEQ#11 50 MPH CRUISE          2.0    0.00           140.8
         SEQ#11 HIGHWAY FUEL ECON.    0.04     0.0   433.3    0.84              20.5
         SEQ#11 4 SPD IDLE (NEUT)    222.5    5.25            17.0
         SEQ#11 4 SPD IDLE (2500)      9.8    0.01            73.7
         SEQ#11 4 SPD IDLE (NEUT)      0.0    0.00            48.9
         SEQ#11 4 SPD IDLE (DRIV)      0.0    0.00            61.9
         SEQ#11 FED 2 MODE (30)        6.2    0.00           106.0
         SEQ#11 FED 2 MODE (NEUT)      0.0    0.00            42.0

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:     0  CO:  0.00   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS              FUEL
VEH.                                      --------- GRAMS / MILE ----------     ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc   CH4    MPG
----   -- ---- --- ----------------      -----   -----   ------   -----  ----   ----
0301   80 FORD 255 4.2/5.0BJF     (CON'T)

           COMMENT : IDLE NEUTRAL 620 RPM, WITH PROPANE 670 RPM.

           SEQ#12 FEDERAL TEST PROC.    0.31     2.0    602.3    0.92           14.6
           SEQ#12 50 MPH CRUISE         14.8    0.00            130.3
           SEQ#12 HIGHWAY FUEL ECON.    0.04     0.1    440.4    0.86           20.1
           SEQ#12 4 SPD IDLE (NEUT)      8.2    0.00             52.9
           SEQ#12 4 SPD IDLE (2500)      3.9    0.00             57.8
           SEQ#12 4 SPD IDLE (NEUT)      0.0    0.00             58.5
           SEQ#12 4 SPD IDLE (DRIV)      0.0    0.00            103.4
           SEQ#12 FED 2 MODE (30)       11.8    0.00             75.3
           SEQ#12 FED 2 MODE (NEUT)      1.6    0.00             44.6

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:     0  CO:  0.00   GAIN:  40

           COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.    0.42     1.6    604.2    0.99           14.6
           SEQ#15 50 MPH CRUISE          2.3    0.00            123.7
           SEQ#15 HIGHWAY FUEL ECON.    0.04     0.0    436.2    0.87           20.3
           SEQ#15 4 SPD IDLE (NEUT)      4.9    0.00             54.4
           SEQ#15 4 SPD IDLE (2500)      0.7    0.00             57.3
           SEQ#15 4 SPD IDLE (NEUT)      0.0    0.00             61.7
           SEQ#15 4 SPD IDLE (DRIV)      1.0    0.00            112.4
           SEQ#15 FED 2 MODE (30)       12.8    0.00             81.6
           SEQ#15 FED 2 MODE (NEUT)      4.3    0.00             48.4

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:     0  CO:  0.00   GAIN:  70

0302   80 FORD 255 4.2/5.0BJF

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:     5  CO:  0.01   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.    0.54     8.3    550.8    0.65           15.7
           SEQ#11 50 MPH CRUISE         29.2    0.00            362.9
           SEQ#11 HIGHWAY FUEL ECON.    0.17     0.2    357.5    1.67           24.8
           SEQ#11 4 SPD IDLE (NEUT)    543.9    5.76             38.6
           SEQ#11 4 SPD IDLE (2500)     74.4    0.01             99.5
           SEQ#11 4 SPD IDLE (NEUT)     18.1    0.00             45.8
           SEQ#11 4 SPD IDLE (DRIV)     13.5    0.00             48.2
           SEQ#11 FED 2 MODE (30)       41.1    0.00            225.5
           SEQ#11 FED 2 MODE (NEUT)     10.2    0.00             37.7

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:    16  CO:  0.00 · GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

8

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                           EMISSION RESULTS                          FUEL
VEH.                                           ---------- GRAMS / MILE -----------------------     ECON
 NO.   YR MAKE CID     ENGINE FAMILY            HC        CO        CO2       NOxc      CH4       MPG
----   -- ---- ---  -----------------         ----      -----     ------    -----     ----      ----
0302   80 FORD 255  4.2/5.0BJF     (CON'T)

           COMMENT : PROPANE GAIN 50 RPM

           SEQ#12 FEDERAL TEST PROC.         0.56       4.5     524.8      0.94                16.6
           SEQ#12 50 MPH CRUISE             31.9       0.00               328.6
           SEQ#12 HIGHWAY FUEL ECON.         0.15       0.0     365.2      1.71                24.3
           SEQ#12 4 SPD IDLE (NEUT)        420.4       0.97                22.4
           SEQ#12 4 SPD IDLE (2500)         49.7       0.00                88.3
           SEQ#12 4 SPD IDLE (NEUT)          6.9       0.00                54.4
           SEQ#12 4 SPD IDLE (DRIV)         10.5       0.00                81.3
           SEQ#12 FED 2 MODE (30)           32.9       0.00               198.6
           SEQ#12 FED 2 MODE (NEUT)         14.4       0.00                38.0

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:     7  CO:  0.00   GAIN:  50

           COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.         0.67       6.3     502.0      1.34                17.3
           SEQ#15 50 MPH CRUISE             23.0       0.00               464.0
           SEQ#15 HIGHWAY FUEL ECON.         0.14       0.1     354.5      2.31                25.0
           SEQ#15 4 SPD IDLE (NEUT)        235.2       0.36                11.4
           SEQ#15 4 SPD IDLE (2500)         44.4       0.00               118.0
           SEQ#15 4 SPD IDLE (NEUT)          7.2       0.00                82.8
           SEQ#15 4 SPD IDLE (DRIV)          8.9       0.00                94.9
           SEQ#15 FED 2 MODE (30)           34.5       0.00               326.5
           SEQ#15 FED 2 MODE (NEUT)         25.6       0.00                62.5

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:     7  CO:  0.00   GAIN:  60

           COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS.AIR,FUEL,PCV &
                     OIL FILTERS,ENGINE OIL & PCV VALVE ADJUSTED IDLE
                     SPEED & MIXTURE TO SPEC.

           SEQ#16 FEDERAL TEST PROC.         0.68       7.2     492.8      1.25                17.5
           SEQ#16 50 MPH CRUISE            181.0       0.00               451.9
           SEQ#16 HIGHWAY FUEL ECON.         0.14       0.2     357.1      2.15                24.8
           SEQ#16 4 SPD IDLE (NEUT)         95.9       0.00                86.2
           SEQ#16 4 SPD IDLE (2500)         87.3       0.00               112.6
           SEQ#16 4 SPD IDLE (NEUT)         59.9       0.00               109.5
           SEQ#16 4 SPD IDLE (DRIV)         55.6       0.00               160.3
           SEQ#16 FED 2 MODE (30)           58.6       0.00               298.2
           SEQ#16 FED 2 MODE (NEUT)         62.2       0.00                71.1

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    59  CO:  0.00   GAIN: 120
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS               FUEL
VEH.                                       ---------- GRAMS / MILE -----------     ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC     CO     CO2    NOxc   CH4        MPG
----   -- ---- ---  ---------------       -----  -----  ------  -----  ----       ----
0303   80 FORD 140 2.3AC

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:   50  CO:  0.02   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.     0.30    3.4   416.0   1.08              21.0
            SEQ#11 50 MPH CRUISE           7.5   0.00          444.8
            SEQ#11 HIGHWAY FUEL ECON.     0.04    0.2   271.7   1.83              32.6
            SEQ#11 4 SPD IDLE (NEUT)     503.9   8.66           20.6
            SEQ#11 4 SPD IDLE (2500)      31.9   0.01           64.6
            SEQ#11 4 SPD IDLE (NEUT)      13.1   0.00           35.2
            SEQ#11 FED 2 MODE (30)        28.9   0.00          268.9
            SEQ#11 FED 2 MODE (NEUT)       9.5   0.00           33.4

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  130  CO:  0.00   GAIN:   0

            COMMENT : PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.     0.37    3.5   414.9   1.15              21.1
            SEQ#12 50 MPH CRUISE           8.2   0.00          460.0
            SEQ#12 HIGHWAY FUEL ECON.     0.05    0.3   277.0   2.15              32.0
            SEQ#12 4 SPD IDLE (NEUT)     475.2   0.86           25.0
            SEQ#12 4 SPD IDLE (2500)      18.1   0.00           59.0
            SEQ#12 4 SPD IDLE (NEUT)       4.3   0.00           49.4
            SEQ#12 FED 2 MODE (30)        17.7   0.00          277.0
            SEQ#12 FED 2 MODE (NEUT)      13.1   0.00           36.9

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    3  CO:  0.00   GAIN:  70

            COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

            SEQ#15 FEDERAL TEST PROC.     0.56    4.3   401.0   1.24              21.7
            SEQ#15 50 MPH CRUISE          12.8   0.00          456.9
            SEQ#15 HIGHWAY FUEL ECON.     0.06    0.4   271.8   2.06              32.6
            SEQ#15 4 SPD IDLE (NEUT)      12.5   0.00           65.3
            SEQ#15 4 SPD IDLE (2500)       6.9   0.00           60.9
            SEQ#15 4 SPD IDLE (NEUT)       8.5   0.00           66.9
            SEQ#15 FED 2 MODE (30)        11.8   0.00          274.0
            SEQ#15 FED 2 MODE (NEUT)      20.4   0.00           60.9

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:   10  CO:  0.00   GAIN:  50
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                 EMISSION RESULTS                   FUEL
VEH.                                  ---------- GRAMS / MILE ----------            ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO       CO2      NOxc     CH4     MPG
----  -- ---- --- ------------------   -----   -----    ------    -----    ----    ----
0303  80 FORD 140 2.3AC    (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL &
                     OIL FILTERS, PCV VALVE, ENGINE OIL.  ADJUSTED
                     IDLE SPEED & MIXTURE TO SPEC.

           SEQ#16 FEDERAL TEST PROC.    0.59     4.6     414.1     1.51             21.0
           SEQ#16 50 MPH CRUISE         16.1    0.00             599.5
           SEQ#16 HIGHWAY FUEL ECON.    0.06     0.2     258.4     2.00             34.3
           SEQ#16 4 SPD IDLE (NEUT)      2.0    0.00              61.0
           SEQ#16 4 SPD IDLE (2500)      5.6    0.00              61.1
           SEQ#16 4 SPD IDLE (NEUT)      2.0    0.00              65.2
           SEQ#16 FED 2 MODE (30)       11.8    0.00             259.8
           SEQ#16 FED 2 MODE (NEUT)      5.9    0.00              58.7

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:    3  CO:  0.00   GAIN:  70

0304  80 FORD 200 3.3GA

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  384  CO:  2.92   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.    0.78    15.1     458.1     1.01             18.3
           SEQ#11 50 MPH CRUISE         13.1    0.00              85.2
           SEQ#11 HIGHWAY FUEL ECON.    0.25     7.7     370.8     0.63             23.1
           SEQ#11 4 SPD IDLE (NEUT)     96.9    0.33              18.6
           SEQ#11 4 SPD IDLE (2500)     13.8    0.04              25.1
           SEQ#11 4 SPD IDLE (NEUT)     96.9    0.37              28.5
           SEQ#11 4 SPD IDLE (DRIV)    200.7    1.02              68.1
           SEQ#11 FED 2 MODE (30)        9.5    0.00              97.5
           SEQ#11 FED 2 MODE (NEUT)    100.2    0.33              20.4

           NO FOLLOW UP LANE TEST DONE


           COMMENT : ADJUSTED IDLE DRIVE 550 RPM, PROPANE GAIN 50 RPM.

           SEQ#12 FEDERAL TEST PROC.    0.43     6.3     465.3     1.51             18.6
           SEQ#12 50 MPH CRUISE          0.0    0.00              98.0
           SEQ#12 HIGHWAY FUEL ECON.    0.20     7.1     368.1     0.76             23.4
           SEQ#12 4 SPD IDLE (NEUT)     10.5    0.00              33.0
           SEQ#12 4 SPD IDLE (2500)     10.2    0.01              33.2
           SEQ#12 4 SPD IDLE (NEUT)      1.3    0.00              48.7
           SEQ#12 4 SPD IDLE (DRIV)      2.0    0.00             157.0
           SEQ#12 FED 2 MODE (30)       10.5    0.00              87.8
           SEQ#12 FED 2 MODE (NEUT)      3.3    0.00              53.1

           NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                          EMISSION RESULTS                      FUEL
VEH.                                              --------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID     ENGINE FAMILY         HC       CO       CO2      NOxc     CH4     MPG
----   -- ---- --- ------------------     -----    -----    ------    -----     ---     ----
0304   80 FORD 200 3.3GA     (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 550 RPM, CO .03%, HC 55 PPM.

          SEQ#15 FEDERAL TEST PROC.       0.32      5.8     454.6     1.44              19.1
          SEQ#15 50 MPH CRUISE            3.9      0.00               92.3
          SEQ#15 HIGHWAY FUEL ECON.       0.17      5.9     357.9     0.61              24.1
          SEQ#15 4 SPD IDLE (NEUT)        6.6      0.00               43.4
          SEQ#15 4 SPD IDLE (2500)        7.9      0.08               34.6
          SEQ#15 4 SPD IDLE (NEUT)        0.0      0.00               50.7
          SEQ#15 4 SPD IDLE (DRIV)        0.7      0.00              162.9
          SEQ#15 FED 2 MODE (30)          9.5      0.00               78.9
          SEQ#15 FED 2 MODE (NEUT)        3.0      0.00               46.7

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   22   CO:   0.09   GAIN:  80


0305   80 MERC 200 3.3GA

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  678   CO:   8.62   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.       1.70     40.4     437.5     0.71              17.5
          SEQ#11 50 MPH CRUISE            3.9      0.01              227.3
          SEQ#11 HIGHWAY FUEL ECON.       0.15      5.3     376.0     0.60              23.1
          SEQ#11 4 SPD IDLE (NEUT)      701.9      5.16               24.4
          SEQ#11 4 SPD IDLE (2500)       53.0      0.01               80.7
          SEQ#11 4 SPD IDLE (NEUT)      503.9      6.62               20.7
          SEQ#11 4 SPD IDLE (DRIV)      572.9      8.34               24.1
          SEQ#11 FED 2 MODE (30)         39.4      0.00              215.0
          SEQ#11 FED 2 MODE (NEUT)      679.1      6.60               20.8

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE RPM WITHOUT PROPANE 730,WITH PROPANE 780
                    RPM.PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.       0.36     10.6     456.8     0.94              18.7
          SEQ#12 50 MPH CRUISE            4.9      0.00              202.2
          SEQ#12 HIGHWAY FUEL ECON.       0.04      3.2     385.0     0.66              22.7
          SEQ#12 4 SPD IDLE (NEUT)        6.2      0.00               62.7
          SEQ#12 4 SPD IDLE (2500)        8.9      0.00               58.7
          SEQ#12 4 SPD IDLE (NEUT)        0.0      0.00               74.0
          SEQ#12 4 SPD IDLE (DRIV)        0.0      0.00              243.6
          SEQ#12 FED 2 MODE (30)          0.0      0.00              166.8
          SEQ#12 FED 2 MODE (NEUT)        0.0      0.00               68.4

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                  FUEL
VEH.                                        ---------- GRAMS / MILE -----------           ECON
 NO.   YR MAKE CID     ENGINE FAMILY          HC       CO       CO2      NOxc    CH4      MPG
----   -- ---- ---  ------------------     -----    -----    ------    -----   ----     ----
0305   80 MERC 200  3.3GA    (CON'T)

            COMMENT : ADJUSTED IDLE MIXTURE TO SPEC,TIMING TO SPEC.

            SEQ#15 FEDERAL TEST PROC.       2.36     90.7     461.9     1.54              14.5
            SEQ#15 50 MPH CRUISE          150.4      4.36               73.9
            SEQ#15 HIGHWAY FUEL ECON.       2.25    103.3     299.7     0.25              18.9
            SEQ#15 4 SPD IDLE (NEUT)        5.6      0.00              201.1
            SEQ#15 4 SPD IDLE (2500)      239.9      4.58               47.2
            SEQ#15 4 SPD IDLE (NEUT)        2.0      0.00              245.7
            SEQ#15 4 SPD IDLE (DRIV)        0.0      0.00             1262.5
            SEQ#15 FED 2 MODE (30)        146.0      4.68               67.2
            SEQ#15 FED 2 MODE (NEUT)        3.6      0.01              260.8

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    12  CO:  0.03   GAIN: 175

            COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,FUEL FILTER,
                      AIR FILTER,PCV VALVE & FILTER,OIL & OIL
                      FILTER.REPLACED CHOKE FUSE.

            SEC#16 FEDERAL TEST PROC.       0.23      8.6     426.6     0.99              20.1
            SEQ#16 50 MPH CRUISE            0.7      0.00              234.2
            SEQ#16 HIGHWAY FUEL ECON.       0.03      2.3     353.2     0.73              24.9
            SEQ#16 4 SPD IDLE (NEUT)        0.0      0.00               38.0
            SEQ#16 4 SPD IDLE (2500)        0.0      0.00               89.0
            SEQ#16 4 SPD IDLE (NEUT)        0.0      0.00               55.5
            SEQ#16 4 SPD IDLE (DRIV)        0.0      0.00              111.6
            SEQ#16 FED 2 MODE (30)          3.0      0.00              186.8
            SEQ#16 FED 2 MODE (NEUT)        0.3      0.00               47.0

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:     7  CO:  0.02   GAIN:  61

0307   80 MERC 200  3.3GA

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:     8  CO:  0.02   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.       0.54      5.7     468.5     1.68              18.5
            SEQ#11 50 MPH CRUISE           11.8      0.00              300.2
            SEQ#11 HIGHWAY FUEL ECON.       0.11      0.2     314.8     2.08              28.1
            SEQ#11 4 SPD IDLE (NEUT)      284.0      1.87               64.4
            SEQ#11 4 SPD IDLE (2500)       24.0      0.01               92.0
            SEQ#11 4 SPD IDLE (NEUT)       12.1      0.00               39.2
            SEQ#11 FED 2 MODE (30)         21.7      0.00              432.7
            SEQ#11 FED 2 MODE (NEUT)        9.2      0.00               42.8

            NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                  FUEL
VEH.                                      ---------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- ----------------       -----   -----   ------   -----   ----      ----
0307   80 MERC 200 3.3GA     (CON'T)

           COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT,
                     PROPANE GAIN 50 RPM.

           SEQ#12 FEDERAL TEST PROC.       0.55     3.9    433.5    2.05              20.1
           SEQ#12 50 MPH CRUISE             8.2    0.00           339.7
           SEQ#12 HIGHWAY FUEL ECON.       0.09     0.1    294.9    1.99              30.1
           SFQ#12 4 SPD IDLE (NEUT)        13.1    0.00             72.8
           SEQ#12 4 SPD IDLE (2500)         2.3    0.00             99.5
           SEQ#12 4 SPD IDLE (NEUT)         0.3    0.00             29.4
           SEQ#12 FED 2 MODE (30)          20.7    0.00            513.6
           SEQ#12 FED 2 MODE (NEUT)         8.9    0.00             41.0

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.       0.46     3.3    448.9    2.24              19.5
           SEQ#15 50 MPH CRUISE             8.2    0.00            287.1
           SEQ#15 HIGHWAY FUEL ECON.       0.10     0.2    316.6    2.30              28.0
           SEQ#15 4 SPD IDLE (NEUT)        15.8    0.00             81.2
           SEQ#15 4 SPD IDLE (2500)         6.2    0.00             95.1
           SEQ#15 4 SPD IDLE (NEUT)         2.6    0.00             37.2
           SEQ#15 FED 2 MODE (30)          19.4    0.00            468.1
           SEQ#15 FED 2 MODE (NEUT)        12.5    0.00             54.6

           FOLLOW UP LANE TEST:
           CAT: P      FUEL: P
           HC:     0   CO:  0.00   GAIN:  80

0308   80 FORD 302 4.2/5.0BU-S

           PRELIMINARY LANE TEST:
           CAT: P      FUEL: P
           HC:     7   CO:  0.02   GAIN:   3

           SEQ#11 FEDERAL TEST PROC.       0.67     6.1    663.7    1.21              13.1
           SEQ#11 50 MPH CRUISE             7.5    0.00            235.5
           SEQ#11 HIGHWAY FUEL ECON.       0.11     0.2    543.8    1.99              16.3
           SEQ#11 4 SPD IDLE (NEUT)       264.4    6.59             45.1
           SEQ#11 4 SPD IDLE (2500)         7.2    0.01             60.2
           SFQ#11 4 SPD IDLE (NEUT)         0.0    0.00             43.8
           SEQ#11 4 SPD IDLE (DRIV)         2.6    0.00             52.0
           SEQ#11 FED 2 MODE (30)          59.9    0.00            128.0
           SEQ#11 FED 2 MODE (NEUT)         5.9    0.00             34.9

           FOLLOW UP LANE TEST:
           CAT: P      FUEL: P
           HC:     8   CO:  0.02   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                              TEXAS PILOT I/M STUDY


                             LISTING OF TEST RESULTS
                                   HOUSTON #2
                                                    EMISSION RESULTS                FUEL
VEH.                                   ---------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc     CH4        MPG
----  -- ---- --- ------------------   -----   -----   ------   -----    ----       ----
0308  80 FORD 302 4.2/5.0BU-S    (CON'T)

        COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                  OIL & OIL FILTER, PCV VALVE & FILTER.

        SEQ#16 FEDERAL TEST PROC.   0.36     2.3    592.5    1.17                 14.9
        SEQ#16 50 MPH CRUISE         8.9    0.00           119.3
        SEQ#16 HIGHWAY FUEL ECON.   0.04     0.0    383.2    0.81                 23.2
        SEQ#16 4 SPD IDLE (NEUT)   213.8    2.62             55.5
        SEQ#16 4 SPD IDLE (2500)     7.5    0.00             51.4
        SEQ#16 4 SPD IDLE (NEUT)     0.0    0.00             46.7
        SEQ#16 4 SPD IDLE (DRIV)     3.3    0.00             60.6
        SEQ#16 FED 2 MODE (30)      18.1    0.00            169.1
        SEQ#16 FED 2 MODE (NEUT)     0.0    0.00             32.5

        FOLLOW UP LANE TEST:
        CAT: P    FUEL: P
        HC:    8  CO:  0.01   GAIN:   0

        COMMENT : INSTALLED NEW CARBURETOR WITH NEW GASKETS AND
                  CHECKED IDLE SPPEDS.

        SEQ#19 FEDERAL TEST PROC.   0.65     3.1    608.1    1.34                 14.4
        SEQ#19 50 MPH CRUISE        12.8    0.00            108.8
        SEQ#19 HIGHWAY FUEL ECON.   0.05     0.0    426.7    0.96                 20.8
        SEQ#19 4 SPD IDLE (NEUT)   192.0    2.27             55.0
        SEQ#19 4 SPD IDLE (2500)    28.9    0.01             48.6
        SFQ#19 4 SPD IDLE (NEUT)     3.9    0.00             40.5
        SEQ#19 4 SPD IDLE (DRIV)    10.8    0.00             59.0
        SEQ#19 FED 2 MODE (30)      23.6    0.00            139.8
        SEQ#19 FED 2 MODE (NEUT)     0.3    0.00             29.7

        NO FOLLOW UP LANE TEST DONE

0310  80 DODG 105 0FA1052BBP/0E-1/4

        PRELIMINARY LANE TEST:
        CAT: P    FUEL: P
        HC:    0  CO:  0.02   GAIN:   0

        SEQ#11 FEDERAL TEST PROC.   0.19     2.2    367.2    1.39                 23.9
        SEQ#11 50 MPH CRUISE        16.4    0.00            648.0
        SEQ#11 HIGHWAY FUEL ECON.   0.01     0.2    304.0    2.58                 29.2
        SEQ#11 4 SPD IDLE (NEUT)    16.4    0.00             32.8
        SEQ#11 4 SPD IDLE (2500)     1.0    0.00             44.9
        SEQ#11 4 SPD IDLE (NEUT)     0.7    0.00             36.7
        SEQ#11 4 SPD IDLE (DRIV)     3.3    0.00             43.5
        SEQ#11 FED 2 MODE (30)       3.3    0.00            340.7
        SEQ#11 FED 2 MODE (NEUT)     0.0    0.00             38.8

        NO FOLLOW UP LANE TEST DONE



   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
```

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                    FUEL
VEH.                                          --------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY            HC      CO      CO2     NOxc     CH4    MPG
----   -- ---- --- -----------------         -----   -----   ------   -----   ----    ----
0310   80 DODG 105 0FA1052BBP/0E-1/4         (CON'T)

            COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO MANUFACTURERS
                      SPECS.LIMITER CAPS ACCIDENTALLY BROKEN OFF DURING
                      ADJUSTMENT,REMOVAL WAS NOT REQUIRED TO ACHEIVE
                      100 RPM PROPANE GAIN.

            SEQ#15 FEDERAL TEST PROC.         0.19     2.0     393.6    1.53            22.3
            SEQ#15 50 MPH CRUISE              16.7    0.00            580.3
            SEQ#15 HIGHWAY FUEL ECON.         0.01     0.1     309.2    2.29            28.7
            SEQ#15 4 SPD IDLE (NEUT)          11.2    0.00             35.9
            SEQ#15 4 SPD IDLE (2500)           0.0    0.00             50.2
            SEQ#15 4 SPD IDLE (NEUT)           0.0    0.00             43.9
            SEQ#15 4 SPD IDLE (DRIV)           0.0    0.00             52.2
            SEQ#15 FED 2 MODE (30)             0.0    0.00            176.0
            SEQ#15 FED 2 MODE (NEUT)           0.0    0.00             44.4

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:     11  CO:  0.01   GAIN: 150

0314   80 PLYM 225 0FA-225-1-BXP

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:     40  CO:  0.05   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.         0.47     3.0     530.7    5.04            16.5
            SEQ#11 50 MPH CRUISE               3.9    0.00           1382.7
            SEQ#11 HIGHWAY FUEL ECON.         0.09     0.3     428.2    5.60            20.7
            SEQ#11 4 SPD IDLE (NEUT)           9.5    0.00             31.8
            SEQ#11 4 SPD IDLE (2500)           2.6    0.00            193.2
            SEQ#11 4 SPD IDLE (NEUT)           5.9    0.00             28.8
            SEQ#11 4 SPD IDLE (DRIV)           3.6    0.00             33.3
            SEQ#11 FED 2 MODE (30)            20.0    0.00           1477.9
            SEQ#11 FED 2 MODE (NEUT)          10.8    0.00             31.6

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:      7  CO:  0.00   GAIN:   0

            COMMENT : PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.         0.70     6.0     552.4    6.06            15.7
            SEQ#12 50 MPH CRUISE               6.2    0.00           1377.7
            SEQ#12 HIGHWAY FUEL ECON.         0.08     0.2     422.5    5.45            21.0
            SEQ#12 4 SPD IDLE (NEUT)          29.9    0.00             27.7
            SEQ#12 4 SPD IDLE (2500)           3.6    0.00            317.4
            SEQ#12 4 SPD IDLE (NEUT)          31.5    0.00             33.5
            SEQ#12 4 SPD IDLE (DRIV)          15.1    0.00             82.2
            SEQ#12 FED 2 MODE (30)            20.0    0.00           1951.3
            SEQ#12 FED 2 MODE (NEUT)          47.4    0.00             51.3

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:     33  CO:  0.00   GAIN:  80
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                  EMISSION RESULTS                FUEL
VEH.                                   ---------- GRAMS / MILE ----------        ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC      CO      CO2    NOxc    CH4       MPG
----  -- ---- --- ------------------  -----   -----  ------  -----   ----      ----
0314  80 PLYM 225 OFA-225-1-BXP    (CON'T)

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.    0.40     4.2   538.3    6.21              16.2
          SEQ#15 50 MPH CRUISE          9.8    0.00          1570.6
          SEQ#15 HIGHWAY FUEL ECON.    0.09     0.2   420.8    6.01              21.1
          SEQ#15 4 SPD IDLE (NEUT)     81.0    0.00            48.7
          SEQ#15 4 SPD IDLE (2500)      2.6    0.00           300.2
          SEQ#15 4 SPD IDLE (NEUT)     47.4    0.00            41.9
          SEQ#15 4 SPD IDLE (DRIV)     23.0    0.00            88.0
          SEQ#15 FED 2 MODE (30)       26.6    0.00          1868.7
          SEQ#15 FED 2 MODE (NEUT)     83.7    0.00            60.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    46  CO:  0.00   GAIN: 140

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                    CARBON CANISTER & OIL FILTER, PCV VALVE, ENGINE
                    OIL, CARBURETOR, VACUUM AMPLIFIER, UNPLUGGED EGR
                    LINE.

          SEQ#16 FEDERAL TEST PROC.    0.41     4.2   526.2    1.39              16.6
          SEQ#16 50 MPH CRUISE          6.9    0.00           222.9
          SEQ#16 HIGHWAY FUEL ECON.    0.06     0.3   407.4    1.38              21.7
          SEQ#16 4 SPD IDLE (NEUT)     15.8    0.00            16.7
          SEQ#16 4 SPD IDLE (2500)      7.5    0.00            39.3
          SEQ#16 4 SPD IDLE (NEUT)      4.3    0.00            18.5
          SEQ#16 4 SPD IDLE (DRIV)      2.6    0.00            47.7
          SEQ#16 FED 2 MODE (30)       17.7    0.00           677.3
          SEQ#16 FED 2 MODE (NEUT)      4.9    0.00            25.7

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    30  CO:  0.00   GAIN:  70

0315  80 AMC  258 CP8R-1/E4

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  240   CO:   3.30  GAIN: -40

          SEQ#11 FEDERAL TEST PROC.    0.94    33.6   5[illegible].7    1.00              14.5
          SEQ#11 50 MPH CRUISE          5.3    0.00           379.1
          SEQ#11 HIGHWAY FUEL ECON.    0.11     0.0   359.3    1.51              24.7
          SEQ#11 4 SPD IDLE (NEUT)      4.3    0.00            36.4
          SEQ#11 4 SPD IDLE (2500)      0.0    0.00           113.1
          SEQ#11 4 SPD IDLE (NEUT)      7.2    0.00            51.3
          SEQ#11 4 SPD IDLE (DRIV)      0.0    0.32            29.2
          SEQ#11 FED 2 MODE (30)       10.2    0.03           361.9
          SEQ#11 FED 2 MODE (NEUT)     17.4    0.00            66.8

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:     7  CO:  0.00   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                     AUTOMOTIVE TESTING LABORATORIES,INC.

                            TEXAS PILOT I/M STUDY


                           LISTING OF TEST RESULTS
                                 HOUSTON #2

                                                   EMISSION RESULTS                      FUEL
VEH.                                     --------- GRAMS / MILE ----------              ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC     CO      CO2     NOxc    CH4             MPG
----  -- ---- --- ------------------    -----  -----  ------   -----   ----            ----
0315  80 AMC  258 CP8R-1/E4    (CON'T)

          COMMENT : PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.     0.77   23.5   520.4    1.09                    15.9
          SEQ#12 50 MPH CRUISE           4.3   0.00          449.9
          SEQ#12 HIGHWAY FUEL ECON.     0.07    0.1   350.5    1.50                    25.3
          SEQ#12 4 SPD IDLE (NEUT)      23.6   0.00             22.8
          SEQ#12 4 SPD IDLE (2500)       1.6   0.00            126.7
          SEQ#12 4 SPD IDLE (NEUT)       1.6   0.00             16.7
          SEQ#12 4 SPD IDLE (DRIV)      23.6   0.00             65.5
          SEQ#12 FED 2 MODE (30)         9.8   0.01            504.5
          SEQ#12 FED 2 MODE (NEUT)       0.0   0.00             17.7

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    3   CO:  0.00   GAIN:  90

          COMMENT : IDLE CO .5%, IDLE NEUTRAL 710 RPM.

          SEQ#13 FEDERAL TEST PROC.     1.08   34.5   561.3    1.12                    14.3
          SEQ#13 50 MPH CRUISE           1.3   0.01          376.1
          SEQ#13 HIGHWAY FUEL ECON.     0.15    0.2   353.9    1.68                    25.0
          SEQ#13 4 SPD IDLE (NEUT)       0.3   0.20             27.6
          SEQ#13 4 SPD IDLE (2500)       0.0   0.00             55.2
          SEQ#13 4 SPD IDLE (NEUT)      22.3   0.80             34.0
          SEQ#13 4 SPD IDLE (DRIV)      55.6   3.28             22.1
          SEQ#13 FED 2 MODE (30)        29.2   0.05            356.9
          SEQ#13 FED 2 MODE (NEUT)      11.2   0.27             55.0

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:   23   CO:  0.80   GAIN:   0

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.     0.96   28.5   527.8    1.14                    15.4
          SEQ#15 50 MPH CRUISE           2.6   0.00          476.1
          SEQ#15 HIGHWAY FUEL ECON.     0.05    0.2   344.2    1.27                    25.7
          SEQ#15 4 SPD IDLE (NEUT)      25.6   0.00             23.6
          SEQ#15 4 SPD IDLE (2500)       0.0   0.00            127.8
          SEQ#15 4 SPD IDLE (NEUT)       1.3   0.00             19.2
          SEQ#15 4 SPD IDLE (DRIV)      27.3   0.00             65.4
          SEQ#15 FED 2 MODE (30)         8.5   0.02            609.6
          SEQ#15 FED 2 MODE (NEUT)       0.0   0.00             20.3

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    0   CO:  0.00   GAIN:  70


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
```

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                                 LISTING OF TEST RESULTS
                                       HOUSTON #2

                                                         EMISSION RESULTS               FUEL
                                             ---------- GRAMS / MILE -----------        ECON
VEH.
 NO.  YR MAKE CID     ENGINE FAMILY        HC      CO      CO2     NOxc    CH4       MPG
----  -- ---- --- -----------------      -----   -----   ------  -----   ----      ----
0315  80 AMC  258 CP8R-1/E4     (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                     CRANKCASE BREATHER & OIL FILTERS, PCV VALVE.
                     ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

           SEQ#16 FEDERAL TEST PROC.     0.81    22.2    532.9   1.12              15.6
           SEQ#16 50 MPH CRUISE           0.0    0.00            351.8
           SEQ#16 HIGHWAY FUEL ECON.     0.05     0.1    347.2   1.00              25.5
           SEQ#16 4 SPD IDLE (NEUT)      15.8    0.00             16.7
           SEQ#16 4 SPD IDLE (2500)       0.0    0.00            110.1
           SEQ#16 4 SPD IDLE (NEUT)       0.0    0.00             13.1
           SEQ#16 4 SPD IDLE (DRIV)      18.1    0.00             68.5
           SEQ#16 FED 2 MODE (30)         9.8    0.02            568.1
           SEQ#16 FED 2 MODE (NEUT)       0.0    0.00             37.8

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:    0  CO:  0.00   GAIN:  70

0319  80 TOYO 108 3T-(F) / EV-TF

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:    8  CO:  0.05   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.     0.31     4.6    391.0   1.22              22.2
           SEQ#11 50 MPH CRUISE           5.3    0.00            608.6
           SEQ#11 HIGHWAY FUEL ECON.     0.07     0.4    253.1   1.29              34.9
           SEQ#11 4 SPD IDLE (NEUT)       0.0    0.00             55.4
           SEQ#11 4 SPD IDLE (2500)       1.0    0.00             83.6
           SEQ#11 4 SPD IDLE (NEUT)       0.0    0.00             58.4
           SEQ#11 FED 2 MODE (30)         7.9    0.00            458.0
           SEQ#11 FED 2 MODE (NEUT)       0.0    0.00             60.4

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE SPEED 850 RPM,PROPANE GAIN 50 RPM.

           SEQ#12 FEDERAL TEST PROC.     0.28     4.3    393.3   1.26              22.1
           SEQ#12 50 MPH CRUISE           6.6    0.01            588.4
           SEQ#12 HIGHWAY FUEL ECON.     0.05     0.5    258.0   1.33              34.3
           SEQ#12 4 SPD IDLE (NEUT)       0.0    0.00             59.8
           SEQ#12 4 SPD IDLE (2500)       0.7    0.01             61.8
           SEQ#12 4 SPD IDLE (NEUT)       0.0    0.00             66.5
           SEQ#12 FED 2 MODE (30)         4.3    0.00            368.0
           SEQ#12 FED 2 MODE (NEUT)       0.0    0.00             69.9

           NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

```
                                   LISTING OF TEST RESULTS
                                          HOUSTON #2
                                                        EMISSION RESULTS                  FUEL
VEH.                                         --------- GRAMS / MILE ----------           ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC       CO      CO2     NOxc    CH4       MPG
----   -- ---- --- ------------------    -----    -----   ------   -----   ----      ----
0319   80 TOYO 108 3T-(F) / EV-TF      (CON'T)

           COMMENT : IDLE SPEED 850 RPM.ADJUSTED IDLE MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.     0.28      4.4    401.6     1.39               21.7
           SEQ#15 50 MPH CRUISE           5.9     0.01            595.4
           SEQ#15 HIGHWAY FUEL ECON.     0.05      0.3    267.7     1.47               33.1
           SEQ#15 4 SPD IDLE (NEUT)       3.3     0.01             51.9
           SEQ#15 4 SPD IDLE (2500)       6.6     0.01             86.0
           SEQ#15 4 SPD IDLE (NEUT)       0.0     0.00             56.5
           SEQ#15 FED 2 MODE (30)        14.4     0.01            503.4
           SEQ#15 FED 2 MODE (NEUT)       0.0     0.00             63.0

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    7   CO:  0.02    GAIN:  30

0327   80 BUIC 301 02S4V/0B4-2

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:  651   CO:  6.03    GAIN:   0

           SEQ#11 FEDERAL TEST PROC.     1.36     25.4    541.3     1.96               15.2
           SEQ#11 50 MPH CRUISE          11.8     0.01            560.1
           SEQ#11 HIGHWAY FUEL ECON.     0.16      1.8    372.3     2.57               23.6
           SEQ#31 4 SPD IDLE (NEUT)     329.4     4.27             38.6
           SEQ#11 4 SPD IDLE (2500)      20.7     0.01            188.8
           SEQ#11 4 SPD IDLE (NEUT)     299.4     4.15             30.4
           SEQ#11 4 SPD IDLE (DRIV)     271.7     3.89             92.1
           SEQ#11 FED 2 MODE (30)        45.0     0.01            248.7
           SEQ#11 FED 2 MODE (NEUT)     308.3     3.46             28.8

           NO FOLLOW UP LANE TEST DONE

           COMMENT : CORRECTED MISROUTED VACUUM LINE TO EFE VALVE.  NO
                     ADJUSTMENTS MADE.

           SEQ#18 FEDERAL TEST PROC.     1.53     27.8    539.2     1.86               15.1
           SEQ#18 50 MPH CRUISE           7.5     0.01            444.8
           SEQ#18 HIGHWAY FUEL ECON.     0.16      1.9    361.5     2.33               24.3
           SEQ#18 4 SPD IDLE (NEUT)     359.6     4.47             34.2
           SEQ#18 4 SPD IDLE (2500)      17.4     0.02            184.5
           SEQ#18 4 SPD IDLE (NEUT)     327.3     4.31             39.2
           SEQ#18 4 SPD IDLE (DRIV)     312.0     4.29             81.6
           SEQ#18 FED 2 MODE (30)        31.2     0.01            211.9
           SEQ#18 FED 2 MODE (NEUT)     327.3     4.03             31.0

           NO FOLLOW UP LANE TEST DONE

  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
```

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
VEH.                                            EMISSION RESULTS                      FUEL
 NO.  YR MAKE CID    ENGINE FAMILY   ---------- GRAMS / MILE ----------               ECON
---- -- ---- --- -----------------    HC     CO      CO2      NOxc    CH4            MPG
0327  80 BUIC 301 02S4V/0B4-2     (CON'T)  -----  -----   ------   -----   ----    ----

         COMMENT : INSTALLED NEW CARBURETOR.

         SEQ#19 FEDERAL TEST PROC.    0.27     2.2    510.2     1.95             17.3
         SEQ#19 50 MPH CRUISE          8.9    0.00             493.3
         SEQ#19 HIGHWAY FUEL ECON.    0.03     0.1    354.5     2.28             25.0
         SEQ#19 4 SPD IDLE (NEUT)      0.0    0.00             157.5
         SEQ#19 4 SPD IDLE (2500)      3.3    0.00             170.9
         SEQ#19 4 SPD IDLE (NEUT)      0.0    0.00             190.4
         SEQ#19 4 SPD IDLE (DRIV)      0.0    0.00             407.4
         SEQ#19 FED 2 MODE (30)        5.9    0.00             282.0
         SEQ#19 FED 2 MODE (NEUT)      5.3    0.00             154.7

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:    5  CO:  0.02   GAIN: 185

0334  80 CHEV 231 04E2A/0B3-4

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:   13  CO:  0.02   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.    0.38     2.7    616.8     2.68             14.3
         SEQ#11 50 MPH CRUISE         12.8    0.01             589.4
         SEQ#11 HIGHWAY FUEL ECON.    0.01     0.0    365.3     2.58             24.3
         SEQ#11 4 SPD IDLE (NEUT)      4.3    0.00              45.7
         SEQ#11 4 SPD IDLE (2500)      0.7    0.00             131.6
         SEQ#11 4 SPD IDLE (NEUT)      3.6    0.00              45.6
         SEQ#11 FED 2 MODE (30)        7.9    0.00             371.0
         SEQ#11 FED 2 MODE (NEUT)      3.9    0.00              44.0

         NO FOLLOW UP LANE TEST DONE

         COMMENT : INSTALLED CARBURETOR.

         SEQ#19 FEDERAL TEST PROC.    0.39     4.1    581.9     2.46             15.1
         SEQ#19 50 MPH CRUISE          3.6    0.00             505.5
         SEQ#19 HIGHWAY FUEL ECON.    0.02     0.2    340.6     2.18             26.0
         SEQ#19 4 SPD IDLE (NEUT)      4.9    0.00              37.4
         SEQ#19 4 SPD IDLE (2500)      0.3    0.00             126.5
         SEQ#19 4 SPD IDLE (NEUT)      4.6    0.00              39.8
         SEQ#19 FED 2 MODE (30)        6.9    0.00             304.3
         SEQ#19 FED 2 MODE (NEUT)      6.2    0.00              39.6

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:    8  CO:  0.02   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                    FUEL
VEH.                                          ---------- GRAMS / MILE ----------         ECON
 NO.  YR MAKE CID   ENGINE FAMILY          HC      CO      CO2     NOxc    CH4          MPG
----  -- ---- --- ------------------     -----   -----   ------   -----   ----         ----
0338  80 CHEV 173 01C2EY/0B6-1

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:    17  CO:  0.04   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    0.42     2.8    497.3    1.60                 17.6
          SEQ#11 50 MPH CRUISE         13.1    0.01            487.3
          SEQ#11 HIGHWAY FUEL ECON.    0.08     0.2    347.4    1.89                 25.5
          SEQ#11 4 SPD IDLE (NEUT)      6.6    0.00             54.7
          SEQ#11 4 SPD IDLE (2500)    245.6    8.05             39.8
          SEQ#11 4 SPD IDLE (NEUT)      7.2    0.01             64.0
          SEQ#11 4 SPD IDLE (DRIV)      5.3    0.01             79.5
          SEQ#11 FED 2 MODE (30)        1.6    0.01            113.4
          SEQ#11 FED 2 MODE (NEUT)      0.0    0.00             60.5

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    19  CO:  0.00   GAIN:  18

0339  80 CHEV 173 01C2EY/0B6-1

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:     9  CO:  0.02   GAIN:   5

          SEQ#11 FEDERAL TEST PROC.    0.40     4.1    483.7    1.75                 18.1
          SEQ#11 50 MPH CRUISE          5.9    0.00            479.2
          SEQ#11 HIGHWAY FUEL ECON.    0.06     0.0    311.0    1.71                 28.5
          SEQ#11 4 SPD IDLE (NEUT)      5.3    0.00             82.4
          SEQ#11 4 SPD IDLE (2500)     56.3    2.48             87.2
          SEQ#11 4 SPD IDLE (NEUT)      4.6    0.01             85.7
          SEQ#11 4 SPD IDLE (DRIV)      3.9    0.00            163.2
          SEQ#11 FED 2 MODE (30)        4.6    0.42             98.0
          SEQ#11 FED 2 MODE (NEUT)      0.0    0.00             82.2

          NO FOLLOW UP LANE TEST DONE

          COMMENT : REPLACED AIR FILTER.

          SEQ#18 FEDERAL TEST PROC.    0.28    10.3    506.6    1.41                 16.9
          SEQ#18 50 MPH CRUISE          4.3    0.00            379.1
          SEQ#18 HIGHWAY FUEL ECON.    0.06     4.2    340.9    1.15                 25.5
          SEQ#18 4 SPD IDLE (NEUT)     10.2    0.74             32.4
          SEQ#18 4 SPD IDLE (2500)    286.7   10.08             13.5
          SEQ#18 4 SPD IDLE (NEUT)     21.3    1.10             26.1
          SEQ#18 4 SPD IDLE (DRIV)      1.0    0.01             61.4
          SEQ#18 FED 2 MODE (30)        7.9    1.37             52.9
          SEQ#18 FED 2 MODE (NEUT)      9.2    1.37             23.7

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

```
                            LISTING OF TEST RESULTS
                                   HOUSTON #2

                                                      EMISSION RESULTS                     FUEL
VEH.                                          --------- GRAMS / MILE ----------            ECON
 NO.  YR MAKE CID    ENGINE FAMILY             HC       CO      CO2     NOxc     CH4       MPG
----  -- ---- --- ------------------         -----    -----   ------   -----    ----       ----
0339  80 CHEV 173 01C2EY/0B6-1     (CON'T)

          COMMENT : INSTALLED NEW CARBURETOR.

          SEQ#19 FEDERAL TEST PROC.    0.29      3.2    469.1     1.77                18.7
          SEQ#19 50 MPH CRUISE        11.8      0.01            469.1
          SEQ#19 HIGHWAY FUEL ECON.    0.06      0.2    317.4     1.81                27.9
          SEQ#19 4 SPD IDLE (NEUT)     6.6      0.00             45.2
          SEQ#19 4 SPD IDLE (2500)   133.7      5.22             41.8
          SEQ#19 4 SPD IDLE (NEUT)     4.9      0.01             50.9
          SEQ#19 4 SPD IDLE (DRIV)     4.9      0.01             77.6
          SEQ#19 FED 2 MODE (30)       3.9      0.01            281.0
          SEQ#19 FED 2 MODE (NEUT)     3.0      0.01             50.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    13  CO:  0.02   GAIN:   0

0349  80 FORD 098 1.6ABF

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:    75  CO:  0.02   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    0.18      5.3    353.1     0.92                24.5
          SEQ#11 50 MPH CRUISE         8.2      0.00            441.8
          SEQ#11 HIGHWAY FUEL ECON.    0.03      0.4    245.5     1.21                36.1
          SEQ#11 4 SPD IDLE (NEUT)  1214.4      5.87             12.6
          SEQ#11 4 SPD IDLE (2500)    64.8      0.03             59.8
          SEQ#11 4 SPD IDLE (NEUT)    39.1      0.01             74.5
          SEQ#11 FED 2 MODE (30)      15.1      0.02            188.8
          SEQ#11 FED 2 MODE (NEUT)     0.0      0.00             62.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   390  CO:  0.01   GAIN:   0

          COMMENT : PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.    0.21      4.7    334.9     0.86                25.9
          SEQ#12 50 MPH CRUISE        12.8      0.00            390.2
          SEQ#12 HIGHWAY FUEL ECON.    0.06      0.1    244.7     1.33                36.2
          SEQ#12 4 SPD IDLE (NEUT)   863.8      0.61             28.8
          SEQ#12 4 SPD IDLE (2500)    17.1      0.00             65.4
          SEQ#12 4 SPD IDLE (NEUT)    19.0      0.00            179.3
          SEQ#12 FED 2 MODE (30)       7.9      0.01            217.5
          SEQ#12 FED 2 MODE (NEUT)    13.5      0.00            188.0

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    20  CO:  0.00   GAIN:  70
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                        AUTOMOTIVE TESTING LABORATORIES,INC.

                              TEXAS PILOT I/M STUDY


                              LISTING OF TEST RESULTS
                                    HOUSTON #2

                                                EMISSION RESULTS            FUEL
VEH.                                  ---------- GRAMS / MILE ----------   ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC      CO     CO2   NOxc   CH4    MPG
----  -- ---- --- ------------------  -----  -----  ------  -----  ----   ----
0349  80 FORD 098 1.6ABF    (CON'T)

           COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.   0.25    5.6   334.3   0.83            25.8
           SEQ#15 50 MPH CRUISE         6.2   0.00          327.5
           SEQ#15 HIGHWAY FUEL ECON.   0.05    0.2   242.1   1.20            36.6
           SEQ#15 4 SPD IDLE (NEUT)   819.5   0.42           39.8
           SEQ#15 4 SPD IDLE (2500)    29.6   0.00           65.1
           SEQ#15 4 SPD IDLE (NEUT)    18.7   0.00          163.9
           SEQ#15 FED 2 MODE (30)       5.3   0.01          149.6
           SEQ#15 FED 2 MODE (NEUT)     0.0   0.00          154.7

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:    20  CO:  0.00   GAIN:  60

0351  80 FORD 140 2.3AC

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:    18  CO:  0.02   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.   0.39    6.4   421.7   1.14            20.5
           SEQ#11 50 MPH CRUISE         9.5   0.00          464.0
           SEQ#11 HIGHWAY FUEL ECON.   0.08    0.3   259.9   1.86            34.0
           SEQ#11 4 SPD IDLE (NEUT)   688.2   8.19           16.7
           SEQ#11 4 SPD IDLE (2500)    23.0   0.00           72.4
           SEQ#11 4 SPD IDLE (NEUT)    27.6   0.00           33.9
           SEQ#11 FED 2 MODE (30)      22.0   0.00          260.8
           SEQ#11 FED 2 MODE (NEUT)    22.3   0.00           32.1

           NO FOLLOW UP LANE TEST DONE


           COMMENT : IDLE NEUTRAL 850 RPM, PROPANE ENRICHED SPEED 910
                     RPM.

           SEQ#12 FEDERAL TEST PROC.   0.63    8.3   411.6   0.93            20.8
           SEQ#12 50 MPH CRUISE        10.8   0.00          404.4
           SEQ#12 HIGHWAY FUEL ECON.   0.09    0.4   259.9   1.68            34.0
           SEQ#12 4 SPD IDLE (NEUT)   620.1   0.74           41.0
           SEQ#12 4 SPD IDLE (2500)    29.9   0.00           55.9
           SEQ#12 4 SPD IDLE (NEUT)    28.6   0.00           30.4
           SEQ#12 FED 2 MODE (30)      24.0   0.00          229.9
           SEQ#12 FED 2 MODE (NEUT)    32.5   0.00           25.3

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:     9  CO:  0.01   GAIN:  68




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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```
                              LISTING OF TEST RESULTS
                                    HOUSTON #2

                                                 EMISSION RESULTS              FUEL
                                       --------- GRAMS / MILE ----------      ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY      HC      CO      CO2    NOxc   CH4    MPG
----  -- ---- --- -----------------  -----  -----  ------  -----  ----   ----
0351  80 FORD 140 2.3AC     (CON'T)

        COMMENT : ADJUSTED IDLE NEUTRAL 850 RPM, PROPANE GAIN 10
                  RPM.

        SEQ#15 FEDERAL TEST PROC.    0.59     7.6   407.5   0.94          21.1
        SEQ#15 50 MPH CRUISE         14.1    0.00          429.6
        SEQ#15 HIGHWAY FUEL ECON.    0.08     0.3   264.1   1.83          33.5
        SEQ#15 4 SPD IDLE (NEUT)    257.0    4.58           42.0
        SEQ#15 4 SPD IDLE (2500)     31.9    0.00           59.7
        SEQ#15 4 SPD IDLE (NEUT)     14.4    0.00           38.6
        SEQ#15 FED 2 MODE (30)       26.9    0.00          222.4
        SEQ#15 FED 2 MODE (NEUT)     10.5    0.00           33.1

        NO FOLLOW UP LANE TEST DONE

        COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE,
                  FUEL FILTER, AIR FILTER, OIL AND OIL FILTER.  SET
                  TO SPEC.

        SEQ#16 FEDERAL TEST PROC.    0.46     6.9   413.0   1.10          20.9
        SEQ#16 50 MPH CRUISE         15.1    0.00          451.9
        SEQ#16 HIGHWAY FUEL ECON.    0.07     0.6   268.1   1.91          33.0
        SEQ#16 4 SPD IDLE (NEUT)    442.2    1.38           46.5
        SEQ#16 4 SPD IDLE (2500)     19.0    0.00           58.9
        SEQ#16 4 SPD IDLE (NEUT)     12.5    0.00           34.4
        SEQ#16 FED 2 MODE (30)       24.6    0.00          276.0
        SEQ#16 FED 2 MODE (NEUT)     14.4    0.00           33.1

        FOLLOW UP LANE TEST:
        CAT: P    FUEL: P
        HC:    9  CO:  0.02   GAIN:   0

0354  80 MERC 140 2.3AC

        PRELIMINARY LANE TEST:
        CAT: P    FUEL: P
        HC:    8  CO:  0.02   GAIN:   7

        SEQ#11 FEDERAL TEST PROC.    0.22     1.4   519.2   1.82          17.0
        SEQ#11 50 MPH CRUISE         19.7    0.00          564.1
        SEQ#11 HIGHWAY FUEL ECON.    0.04     0.2   356.8   3.58          24.8
        SEQ#11 4 SPD IDLE (NEUT)    477.4    7.24           31.9
        SEQ#11 4 SPD IDLE (2500)     43.7    0.01           62.8
        SEQ#11 4 SPD IDLE (NEUT)     13.5    0.00           39.3
        SEQ#11 FED 2 MODE (30)       11.2    0.00          187.0
        SEQ#11 FED 2 MODE (NEUT)      7.5    0.00           35.1

        NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
VEH.                                                 EMISSION RESULTS                        FUEL
 NO.   YR MAKE CID     ENGINE FAMILY        --------- GRAMS / MILE ----------                ECON
 ----  -- ---- ---  -----------------       HC      CO      CO2     NOxc     CH4           MPG
0354   80 MERC 140 2.3AC     (CON'T)       -----   -----   -----   -----    ----           ----

          COMMENT : NO MAINTENANCE PERFORMED DURING PREADJUSTMENT.50
                    RPM PROPANE GAIN ACHEIVED AT PROPANE CARB.
                    ADJUSTMENT M-1.IDLE RPM 850,WITH PROPANE 900.

          SEQ#12 FEDERAL TEST PROC.     0.42     3.4    450.2    1.60               19.4
          SEQ#12 50 MPH CRUISE           4.9    0.00           469.1
          SEQ#12 HIGHWAY FUEL ECON.     0.05     0.1    330.5    2.99               26.8
          SEQ#12 4 SPD IDLE (NEUT)     426.9    1.64             33.2
          SEQ#12 4 SPD IDLE (2500)      29.9    0.00             59.5
          SEQ#12 4 SPD IDLE (NEUT)       7.2    0.00             42.2
          SEQ#12 FED 2 MODE (30)        10.8    0.00            189.3
          SEQ#12 FED 2 MODE (NEUT)       5.3    0.00             38.4

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:     7  CO:  0.00   GAIN:  70

          COMMENT : ADJUSTED IDLE MIXTURE TO 30 RPM PROPANE GAIN AT
                    850 RPM IN NEUTRAL.

          SEQ#15 FEDERAL TEST PROC.     0.41     3.2    460.4    1.61               19.0
          SEQ#15 50 MPH CRUISE           3.6    0.00           448.9
          SEQ#15 HIGHWAY FUEL ECON.     0.05     0.0    326.8    3.03               27.1
          SEQ#15 4 SPD IDLE (NEUT)     277.9    3.55             50.1
          SEQ#15 4 SPD IDLE (2500)      29.2    0.01             62.4
          SEQ#15 4 SPD IDLE (NEUT)       4.9    0.00             46.0
          SEQ#15 FED 2 MODE (30)        11.8    0.00            172.4
          SEQ#15 FED 2 MODE (NEUT)       0.7    0.00             41.6

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:     7  CO:  0.00   GAIN:  50

0356  80 FORD 302 4.2/5.0BJF

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:     4  CO:  0.02   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     0.50     3.3    630.3    1.90               13.9
          SEQ#11 50 MPH CRUISE           8.5    0.00           204.5
          SEQ#11 HIGHWAY FUEL ECON.     0.05     0.1    365.4    1.33               24.3
          SEQ#11 4 SPD IDLE (NEUT)     313.7    3.04             36.3
          SEQ#11 4 SPD IDLE (2500)       3.6    0.00             86.2
          SEQ#11 4 SPD IDLE (NEUT)       0.0    0.00             61.4
          SEQ#11 4 SPD IDLE (DRIV)       0.0    0.00             61.9
          SEQ#11 FED 2 MODE (30)        14.1    0.01            127.5
          SEQ#11 FED 2 MODE (NEUT)       0.0    0.00             36.3

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:     0  CO:  0.00   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                     AUTOMOTIVE TESTING LABORATORIES,INC.

                            TEXAS PILOT I/M STUDY


                           LISTING OF TEST RESULTS
                                 HOUSTON #2

                                                      EMISSION RESULTS              FUEL
VEH.                                         --------- GRAMS / MILE ----------      ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- ----------------   -----   -----   ------   -----   ----      ----
0356   80 FORD 302 4.2/5.0BJF    (CON'T)

          COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT.
                    50 RPM GAIN WAS ACHEIVED AT STEP 7 OF PROPANE
                    CARBURETOR ADJUSTMENT A-2.  IDLE NEUTRAL 600 RPM,
                    WITH PROPANE 650 RPM.

          SEQ#12 FEDERAL TEST PROC.   0.31     3.3    570.2    1.17              15.4
          SEQ#12 50 MPH CRUISE         7.9    0.00           175.7
          SEQ#12 HIGHWAY FUEL ECON.   0.04     0.1    357.1    1.20              24.8
          SEQ#12 4 SPD IDLE (NEUT)    15.1    0.16             10.0
          SEQ#12 4 SPD IDLE (2500)    13.5    0.00             68.0
          SEQ#12 4 SPD IDLE (NEUT)     0.0    0.00             63.5
          SEQ#12 4 SPD IDLE (DRIV)     0.0    0.00             91.3
          SEQ#12 FED 2 MODE (30)       8.5    0.00             92.0
          SEQ#12 FED 2 MODE (NEUT)     0.3    0.00             38.5

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    0  CO:  0.00   GAIN:  40

          COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.   0.29     1.4    560.5    1.47              15.7
          SEQ#15 50 MPH CRUISE         0.0    0.00           213.7
          SEQ#15 HIGHWAY FUEL ECON.   0.04     0.0    311.5    1.11              28.5
          SEQ#15 4 SPD IDLE (NEUT)     5.6    0.00             53.0
          SEQ#15 4 SPD IDLE (2500)    19.4    0.00             77.4
          SEQ#15 4 SPD IDLE (NEUT)     0.0    0.00             62.0
          SEQ#15 4 SPD IDLE (DRIV)     0.0    0.00             93.1
          SEQ#15 FED 2 MODE (30)       9.5    0.00            198.6
          SEQ#15 FED 2 MODE (NEUT)    10.5    0.00             45.2

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    0  CO:  0.00   GAIN: 130

0357   80 FORD 200 3.3GA/A

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  678  CO:  6.99   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.   1.97    43.6    440.0    1.08              17.2
          SEQ#11 50 MPH CRUISE         4.3    0.00           140.6
          SEQ#11 HIGHWAY FUEL ECON.   0.20     3.6    376.7    0.84              23.2
          SEQ#11 4 SPD IDLE (NEUT)   522.0    4.77             24.3
          SEQ#11 4 SPD IDLE (2500)    32.2    0.01             49.7
          SEQ#11 4 SPD IDLE (NEUT)   370.5    4.67             17.6
          SEQ#11 4 SPD IDLE (DRIV)   341.8    4.85             42.2
          SEQ#11 FED 2 MODE (30)      14.4    0.00            205.0
          SEQ#11 FED 2 MODE (NEUT)   479.4    4.67             25.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  689  CO:  7.31   GAIN:   0


  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                  FUEL
VEH.                                      ---------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4       MPG
----   -- ---- ---  ------------------    -----   -----   ------   ----    ----      ----
0357   80 FORD 200  3.3GA/A      (CON'T)

         COMMENT : IDLE NEUTRAL 750 RPM, PROPANE GAIN 50 RPM.
                   ACHIEVED AT STEP 6 OF PROPANE CARB ADJUSTMENT
                   PROCEDURE A-1.

         SEQ#12 FEDERAL TEST PROC.      0.38     3.8    481.4     2.18              18.2
         SEQ#12 50 MPH CRUISE           0.0     0.00            164.2
         SEQ#12 HIGHWAY FUEL ECON.      0.05     1.0    393.6     1.23              22.5
         SEQ#12 4 SPD IDLE (NEUT)       5.6     0.00             73.8
         SEQ#12 4 SPD IDLE (2500)      11.8     0.00             54.5
         SEQ#12 4 SPD IDLE (NEUT)       0.0     0.00             91.1
         SEQ#12 4 SPD IDLE (DRIV)       0.7     0.00            469.1
         SEQ#12 FED 2 MODE (30)         9.8     0.00            148.0
         SEQ#12 FED 2 MODE (NEUT)       2.3     0.00             82.2

         NO FOLLOW UP LANE TEST DONE

         COMMENT : IDLE DRIVE 550 RPM, IDLE NEUTRAL 710 RPM, CO .02%,
                    IDLE HC 30 PPM.

         SEQ#15 FEDERAL TEST PROC.      0.37     5.1    438.8     1.98              19.8
         SEQ#15 50 MPH CRUISE           5.9     0.00            142.9
         SEQ#15 HIGHWAY FUEL ECON.      0.07     2.0    350.8     0.80              25.1
         SEQ#15 4 SPD IDLE (NEUT)       5.9     0.00             72.3
         SEQ#15 4 SPD IDLE (2500)       5.9     0.00             48.7
         SEQ#15 4 SPD IDLE (NEUT)       0.0     0.00             92.3
         SEQ#15 4 SPD IDLE (DRIV)       0.0     0.00            524.7
         SEQ#15 FED 2 MODE (30)         6.6     0.00            130.6
         SEQ#15 FED 2 MODE (NEUT)       1.6     0.00             79.3

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:     5  CO:  0.03   GAIN: 410

0358  80 FORD 302 4.2/5.0BHS

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  238   CO:  3.80   GAIN:  10

         SEQ#11 FEDERAL TEST PROC.      1.16    45.1    588.6     0.83              13.4
         SEQ#11 50 MPH CRUISE           5.3     0.00            512.5
         SEQ#11 HIGHWAY FUEL ECON.      0.12     1.1    362.2     1.77              24.4
         SEQ#11 4 SPD IDLE (NEUT)     228.9     1.97             48.6
         SEQ#11 4 SPD IDLE (2500)      12.1     0.00            113.1
         SEQ#11 4 SPD IDLE (NEUT)     240.6     2.10             35.3
         SEQ#11 4 SPD IDLE (DRIV)     199.1     1.15             60.3
         SEQ#11 FED 2 MODE (30)        11.8     0.00            269.9
         SEQ#11 FED 2 MODE (NEUT)     215.1     1.99             25.8

         NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                           LISTING OF TEST RESULTS
                                 HOUSTON #2

                                                      EMISSION RESULTS              FUEL
VEH.                                           --------- GRAMS / MILE ----------    ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- ------------------    -----   -----   ------   -----   ----     ----
0358   80 FORD 302 4.2/5.0BHS     (CON'T)

           COMMENT : IDLE NEUTRAL 590 RPM, CO .5%.

           SEQ#13 FEDERAL TEST PROC.     0.59     3.9    546.8     2.17             16.0
           SEQ#13 50 MPH CRUISE           2.0    0.00             567.1
           SEQ#13 HIGHWAY FUEL ECON.     0.06     0.1    352.1     2.27             25.2
           SEQ#13 4 SPD IDLE (NEUT)       0.0    0.00              34.7
           SEQ#13 4 SPD IDLE (2500)       0.0    0.00             126.2
           SEQ#13 4 SPD IDLE (NEUT)       0.0    0.00              31.3
           SEQ#13 4 SPD IDLE (DRIV)       0.0    0.00             123.4
           SEQ#13 FED 2 MODE (30)         3.6    0.00             314.4
           SEQ#13 FED 2 MODE (NEUT)       0.3    0.00              40.7

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE DRIVE 500 RPM.  ADJUSTED IDLE MIXTURE TO
                     SPEC.

           SEQ#15 FEDERAL TEST PROC.     0.47     5.3    555.3     1.93             15.7
           SEQ#15 50 MPH CRUISE           5.3    0.00             278.0
           SEQ#15 HIGHWAY FUEL ECON.     0.13     1.1    365.3     1.48             24.2
           SEQ#15 4 SPD IDLE (NEUT)     255.4    2.21              24.1
           SEQ#15 4 SPD IDLE (2500)       8.5    0.00              66.6
           SEQ#15 4 SPD IDLE (NEUT)     236.9    2.26              13.4
           SEQ#15 4 SPD IDLE (DRIV)     221.8    1.74              43.2
           SEQ#15 FED 2 MODE (30)         7.5    0.00             161.9
           SEQ#15 FED 2 MODE (NEUT)     225.5    2.27              10.7

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:  303   CO:  2.30   GAIN:   0

0359   80 MERC 250 4.1FA

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:    11  CO:  0.10   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.     0.50    16.1    529.9     1.53             15.9
           SEQ#11 50 MPH CRUISE          19.7    0.00             189.1
           SEQ#11 HIGHWAY FUEL ECON.     0.03     0.1    430.9     1.47             20.6
           SEQ#11 4 SPD IDLE (NEUT)     256.0    5.37              59.7
           SEQ#11 4 SPD IDLE (2500)      23.3    0.00              82.7
           SEQ#11 4 SPD IDLE (NEUT)     229.5    5.91              58.5
           SEQ#11 4 SPD IDLE (DRIV)     303.2    6.10              69.5
           SEQ#11 FED 2 MODE (30)        19.4    0.00             112.6
           SEQ#11 FED 2 MODE (NEUT)     258.4    5.67              57.2

           NO FOLLOW UP LANE TEST DONE


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                            LISTING OF TEST RESULTS
                                  HOUSTON #2

                                              EMISSION RESULTS             FUEL
VEH.                                  --------- GRAMS / MILE ----------    ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC      CO     CO2    NOxc   CH4   MPG
----  -- ---- --- -----------------   -----   -----  ------  -----  ----  ----
0359  80 MERC 250 4.1FA    (CON'T)

          COMMENT : NO MAINTENANCE PERFORMED DURING PROPANE
                    PREADJUSTMENTS.  50 RPM GAIN ACHEIVED DURING STEP
                    6, PROPANE ADJUSTMENTS.  600 RPM WITHOUT PROPANE.
                    650 RPM WITH PROPANE.

          SEQ#12 FEDERAL TEST PROC.   0.17     1.0   516.9   1.74         17.1
          SEQ#12 50 MPH CRUISE         0.0    0.00         165.5
          SEQ#12 HIGHWAY FUEL ECON.   0.02     0.0   422.4   1.44         21.0
          SEQ#12 4 SPD IDLE (NEUT)     0.0    0.00          52.8
          SEQ#12 4 SPD IDLE (2500)    15.4    0.00          58.1
          SEQ#12 4 SPD IDLE (NEUT)     0.0    0.00          56.8
          SEQ#12 4 SPD IDLE (DRIV)     0.0    0.00         104.9
          SEQ#12 FED 2 MODE (30)       8.2    0.00          64.0
          SEQ#12 FED 2 MODE (NEUT)     0.0    0.00          41.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    0  CO:  0.00   GAIN:  60

          COMMENT : ADJUSTED IDLE MIXTURE TO 35 RPM PROPANE GAIN IN
                    DRIVE.

          SEQ#15 FEDERAL TEST PROC.   0.15     0.7   519.7   1.84         17.0
          SEQ#15 50 MPH CRUISE         0.0    0.00         146.2
          SEQ#15 HIGHWAY FUEL ECON.   0.02     0.0   418.1   1.45         21.2
          SEQ#15 4 SPD IDLE (NEUT)     0.0    0.00          47.7
          SEQ#15 4 SPD IDLE (2500)    26.6    0.00          56.9
          SEQ#15 4 SPD IDLE (NEUT)     0.0    0.00          58.2
          SEQ#15 4 SPD IDLE (DRIV)     0.0    0.00          89.3
          SEQ#15 FED 2 MODE (30)       4.3    0.00          71.0
          SEQ#15 FED 2 MODE (NEUT)     0.0    0.00          43.2

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    0  CO:  0.00   GAIN: 130

0372  80 MAZD 086 OUCP/OSCAF

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:    4  CO:  0.02   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.   0.33     5.7   370.3   1.04         23.3
          SEQ#11 50 MPH CRUISE         8.2    0.00         254.8
          SEQ#11 HIGHWAY FUEL ECON.   0.07     0.2   256.0   1.61         34.6
          SEQ#11 4 SPD IDLE (NEUT)     7.5    0.00          33.4
          SEQ#11 4 SPD IDLE (2500)     2.6    0.02          39.4
          SEQ#11 4 SPD IDLE (NEUT)     0.3    0.00          34.1
          SEQ#11 FED 2 MODE (30)      11.5    0.01         201.6
          SEQ#11 FED 2 MODE (NEUT)     6.6    0.00          34.9

          NO FOLLOW UP LANE TEST DONE


  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                   FUEL
VEH.                                      --------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2      NOxc     CH4      MPG
----  -- ---- --- ----------------       -----   -----   ------   -----    ----     ----
0372  80 MAZD 086 OUCP/OSCAF     (CON'T)

           COMMENT : IDLE NEUTRAL 700 RPM, PROPANE GAIN 50 RPM.
                     ACHIEVED AT STEP 6C OF PROPANE CARB PROCEDURE M-1.

           SEQ#12 FEDERAL TEST PROC.    0.28     3.5    354.1    1.01              24.6
           SEQ#12 50 MPH CRUISE          8.9    0.00           246.7
           SEQ#12 HIGHWAY FUEL ECON.    0.07     0.2    261.0    1.51              33.9
           SEQ#12 4 SPD IDLE (NEUT)      6.6    0.00            36.1
           SEQ#12 4 SPD IDLE (2500)      9.2    0.00            45.9
           SEQ#12 4 SPD IDLE (NEUT)      4.6    0.00            34.2
           SEQ#12 FED 2 MODE (30)       15.1    0.00           154.4
           SEQ#12 FED 2 MODE (NEUT)      5.3    0.00            37.2

           NO FOLLOW UP LANE TEST DONE


           COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.    0.29     3.7    365.5    1.16              23.8
           SEQ#15 50 MPH CRUISE          6.9    0.00           259.8
           SEQ#15 HIGHWAY FUEL ECON.    0.07     0.3    267.1    1.77              33.1
           SEQ#15 4 SPD IDLE (NEUT)      7.9    0.00            32.1
           SEQ#15 4 SPD IDLE (2500)      5.3    0.00            42.0
           SEQ#15 4 SPD IDLE (NEUT)      1.3    0.00            32.9
           SEQ#15 FED 2 MODE (30)       13.8    0.01           154.2
           SEQ#15 FED 2 MODE (NEUT)      3.0    0.00            35.7

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    16  CO:  0.01   GAIN: 100


8378  78 DODG 360 FB-360-4-CE-3

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: F
           HC:  144   CO:  0.73   GAIN: 130

           SEQ#11 FEDERAL TEST PROC.    1.58     7.2    758.8    3.05              11.5
           SEQ#11 50 MPH CRUISE         14.1    0.14           430.7
           SEQ#11 HIGHWAY FUEL ECON.    0.65     3.6    483.2    3.07              18.1
           SEQ#11 4 SPD IDLE (NEUT)     38.8    0.53            54.4
           SEQ#11 4 SPD IDLE (2500)     79.4    0.09           165.2
           SEQ#11 4 SPD IDLE (NEUT)     61.2    0.60            50.2
           SEQ#11 4 SPD IDLE (DRIV)     76.1    0.58            62.2
           SEQ#11 FED 2 MODE (30)        4.9    0.10            96.7
           SEQ#11 FED 2 MODE (NEUT)     45.7    0.36            49.2

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                          LISTING OF TEST RESULTS
                                HOUSTON #2
                                                   EMISSION RESULTS                      FUEL
VEH.                                     --------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC       CO      CO2     NOxc    CH4           MPG
----   -- ---- --- ------------------   -----    -----   ------   -----   ----           ---
8378   78 DODG 360 FB-360-4-CE-3     (CON'T)

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                    OIL AND OIL FILTER, FUEL FILTER, PCV VALVE.
                    ADJUSTED TO MANUFACTURER SPEC.

          SEQ#16 FEDERAL TEST PROC.     2.04      7.3    713.3     1.71                    12.1
          SEQ#16 50 MPH CRUISE           8.9     0.06            170.9
          SEQ#16 HIGHWAY FUEL ECON.     0.78      3.7    497.9     3.22                    17.5
          SEQ#16 4 SPD IDLE (NEUT)     206.7     0.13             25.6
          SEQ#16 4 SPD IDLE (2500)       9.5     0.05             67.9
          SEQ#16 4 SPD IDLE (NEUT)     939.2     0.14             35.2
          SEQ#16 4 SPD IDLE (DRIV)     267.4     0.10             50.3
          SEQ#16 FED 2 MODE (30)        10.8     0.10            133.4
          SEQ#16 FED 2 MODE (NEUT)     715.6     0.15             30.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : INSTALLED NEW CATALYST.

          SEQ#17 FEDERAL TEST PROC.     0.37      1.4    813.7     1.58                    10.9
          SEQ#17 50 MPH CRUISE           0.0     0.01            160.6
          SEQ#17 HIGHWAY FUEL ECON.     0.05      0.2    518.2     2.83                    17.1
          SEQ#17 4 SPD IDLE (NEUT)     121.8     0.01             56.7
          SEQ#17 4 SPD IDLE (2500)       3.9     0.01             71.6
          SEQ#17 4 SPD IDLE (NEUT)      71.4     0.01             52.1
          SEQ#17 4 SPD IDLE (DRIV)      38.5     0.01             85.3
          SEQ#17 FED 2 MODE (30)         0.0     0.00            120.8
          SEQ#17 FED 2 MODE (NEUT)      86.6     0.01             51.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: F
          HC:   25  CO:  0.02   GAIN: 270

8379   78 PLYM 225 FD-225-2-CAE-1

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  306  CO:  6.85   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     2.70     49.5    452.1     1.93                    16.5
          SEQ#11 50 MPH CRUISE           9.8     0.02            984.4
          SEQ#11 HIGHWAY FUEL ECON.     0.53      7.4    352.8     1.26                    24.2
          SEQ#11 4 SPD IDLE (NEUT)     237.6     4.95             60.4
          SEQ#11 4 SPD IDLE (2500)      87.0     0.56            461.0
          SEQ#11 4 SPD IDLE (NEUT)     249.0     4.58             61.6
          SEQ#11 4 SPD IDLE (DRIV)     318.7     4.88             86.0
          SEQ#11 FED 2 MODE (30)       184.4     0.68           2603.3
          SEQ#11 FED 2 MODE (NEUT)     252.0     4.61             75.5

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8379	78	PLYM	225	FD-225-2-CAE-1	(CON'T)					

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 60 RPM. USED UNIVERSAL PROPANE METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	1.07	16.5	475.5	1.85		17.6
SEQ#12 50 MPH CRUISE	6.9	0.01		1182.3		
SEQ#12 HIGHWAY FUEL ECON.	0.13	1.3	335.7	1.78		26.2
SEQ#12 4 SPD IDLE (NEUT)	14.1	0.10		33.9		
SEQ#12 4 SPD IDLE (2500)	9.5	0.03		377.1		
SEQ#12 4 SPD IDLE (NEUT)	7.9	0.04		55.9		
SEQ#12 4 SPD IDLE (DRIV)	8.9	0.02		191.9		
SEQ#12 FED 2 MODE (30)	20.0	0.05		2938.6		
SEQ#12 FED 2 MODE (NEUT)	11.5	0.02		101.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE CO .5%, HC 100 PPM. IDLE NEUTRAL 750 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	1.51	20.0	480.6	2.13		17.2
SEQ#13 50 MPH CRUISE	8.9	0.00		944.2		
SEQ#13 HIGHWAY FUEL ECON.	0.17	1.4	359.4	2.10		24.5
SEQ#13 4 SPD IDLE (NEUT)	48.0	0.17		28.3		
SEQ#13 4 SPD IDLE (2500)	6.6	0.01		424.6		
SEQ#13 4 SPD IDLE (NEUT)	104.9	0.76		49.9		
SEQ#13 4 SPD IDLE (DRIV)	193.0	0.70		95.9		
SEQ#13 FED 2 MODE (30)	75.1	0.10		2859.7		
SEQ#13 FED 2 MODE (NEUT)	111.5	0.65		65.2		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 900 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	5.44	14.4	561.2	2.72		14.8
SEQ#15 50 MPH CRUISE	143.0	0.02		1079.6		
SEQ#15 HIGHWAY FUEL ECON.	1.40	2.4	421.7	2.70		20.6
SEQ#15 4 SPD IDLE (NEUT)	72.8	0.00		80.1		
SEQ#15 4 SPD IDLE (2500)	171.7	0.00		431.7		
SEQ#15 4 SPD IDLE (NEUT)	63.2	0.00		78.1		
SEQ#15 4 SPD IDLE (DRIV)	66.2	0.00		200.9		
SEQ#15 FED 2 MODE (30)	290.0	0.02		2415.9		
SEQ#15 FED 2 MODE (NEUT)	89.6	0.00		94.7		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                  EMISSION RESULTS              FUEL
VEH.                                     --------- GRAMS / MILE ----------      ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4    MPG
----  -- ---- --- ----------------      -----   -----   ------   -----   ----   ----
8379  78 PLYM 225 FD-225-2-CAE-1    (CON'T)

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, FUEL FILTER,
                     PCV VALVE, PURGE CANISTER FILTER, OIL AND OIL
                   FILTER, AIR FILTER, SET TO SPEC.

         SEQ#16 FEDERAL TEST PROC.   0.56     4.4    502.9    2.25           17.3
         SEQ#16 50 MPH CRUISE         4.3    0.01            562.1
         SEQ#16 HIGHWAY FUEL ECON.   0.07     0.4    358.3    1.88           24.7
         SEQ#16 4 SPD IDLE (NEUT)    71.4    0.00             25.2
         SEQ#16 4 SPD IDLE (2500)     9.2    0.01            212.2
         SEQ#16 4 SPD IDLE (NEUT)    50.3    0.00             29.7
         SEQ#16 4 SPD IDLE (DRIV)    33.8    0.01             51.0
         SEQ#16 FED 2 MODE (30)      11.5    0.01           1756.0
         SEQ#16 FED 2 MODE (NEUT)    64.8    0.00             47.9

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   30  CO:  0.02   GAIN: 519


8382  78 FORD 200 F200B1X95 / AB

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  109  CO:  2.03   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.   1.45    20.1    480.8    2.02           17.2
         SEQ#11 50 MPH CRUISE        22.3    0.01            157.3
         SEQ#11 HIGHWAY FUEL ECON.   0.49     7.7    365.2    1.31           23.4
         SEQ#11 4 SPD IDLE (NEUT)    72.4    0.83             30.1
         SEQ#11 4 SPD IDLE (2500)     8.2    0.01            235.0
         SEQ#11 4 SPD IDLE (NEUT)    66.2    1.34             29.3
         SEQ#11 4 SPD IDLE (DRIV)    39.8    0.06             38.4
         SEQ#11 FED 2 MODE (30)      46.7    0.00            180.3
         SEQ#11 FED 2 MODE (NEUT)    69.8    1.58             31.7

         NO FOLLOW UP LANE TEST DONE


         COMMENT : IDLE NEUTRAL 830 RPM, PROPANE GAIN 50 RPM.

         SEQ#12 FEDERAL TEST PROC.   1.18     6.4    467.1    2.27           18.5
         SEQ#12 50 MPH CRUISE        24.3    0.01            192.4
         SEQ#12 HIGHWAY FUEL ECON.   0.43     5.1    377.5    1.50           22.9
         SEQ#12 4 SPD IDLE (NEUT)   164.0    0.00             19.4
         SEQ#12 4 SPD IDLE (2500)    41.7    0.00            107.2
         SEQ#12 4 SPD IDLE (NEUT)    76.7    0.00             22.7
         SEQ#12 4 SPD IDLE (DRIV)    63.2    0.00             43.9
         SEQ#12 FED 2 MODE (30)      54.3    0.00            198.8
         SEQ#12 FED 2 MODE (NEUT)    91.3    0.00             23.8

         NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                    FUEL
VEH.                                          --------- GRAMS / MILE -----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY           HC      CO      CO2     NOxc    CH4         MPG
----   -- ---- --- -----------------        -----   -----   ------   -----   ----        ----
8382   78 FORD 200 F200B1X95 / AB   (CON'T)

        COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .02%, HC 65 PPM.

        SEQ#15 FEDERAL TEST PROC.    1.17     7.8    481.3    2.48               17.8
        SEQ#15 50 MPH CRUISE         24.0    0.01            243.6
        SEQ#15 HIGHWAY FUEL ECON.    0.49     7.0    387.2    1.70               22.2
        SEQ#15 4 SPD IDLE (NEUT)    141.7    0.00             29.2
        SEQ#15 4 SPD IDLE (2500)    119.4    0.00             62.3
        SEQ#15 4 SPD IDLE (NEUT)     42.7    0.00             29.4
        SEQ#15 4 SPD IDLE (DRIV)    114.5    0.00             58.6
        SEQ#15 FED 2 MODE (30)       51.6    0.00            224.2
        SEQ#15 FED 2 MODE (NEUT)     68.5    0.00             26.7

        FOLLOW UP LANE TEST:
        CAT: P    FUEL: P
        HC:   64  CO:  0.02   GAIN: 250

8383  78 FORD 200 F200B1X95 / AB

        PRELIMINARY LANE TEST:
        CAT: P    FUEL: P
        HC:  244  CO:  5.65   GAIN:   0

        SEQ#11 FEDERAL TEST PROC.    1.61    29.2    468.6    2.18               17.1
        SEQ#11 50 MPH CRUISE         18.1    0.00            172.1
        SEQ#11 HIGHWAY FUEL ECON.    0.25     2.1    392.2    1.57               22.4
        SEQ#11 4 SPD IDLE (NEUT)    144.7    2.01             34.3
        SEQ#11 4 SPD IDLE (2500)     11.5    0.01            363.9
        SEQ#11 4 SPD IDLE (NEUT)    150.4    2.95             33.7
        SEQ#11 4 SPD IDLE (DRIV)    207.1    3.35             38.2
        SEQ#11 FED 2 MODE (30)       98.9    0.00            102.4
        SEQ#11 FED 2 MODE (NEUT)    162.7    3.15             30.5

        NO FOLLOW UP LANE TEST DONE

        COMMENT : IDLE SPEED 850 NEUTRAL, PROPANE GAIN 50 RPM.

        SEQ#12 FEDERAL TEST PROC.    0.92     7.0    503.6    2.24               17.2
        SEQ#12 50 MPH CRUISE         13.5    0.00            211.1
        SEQ#12 HIGHWAY FUEL ECON.    0.19     0.8    391.2    1.69               22.6
        SEQ#12 4 SPD IDLE (NEUT)     13.5    0.00             43.3
        SEQ#12 4 SPD IDLE (2500)     36.8    0.00             48.6
        SEQ#12 4 SPD IDLE (NEUT)      3.0    0.00             50.7
        SEQ#12 4 SPD IDLE (DRIV)      4.3    0.00            149.8
        SEQ#12 FED 2 MODE (30)       52.0    0.00            131.3
        SEQ#12 FED 2 MODE (NEUT)      6.2    0.00             49.1

        NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                    EMISSION RESULTS                  FUEL
VEH.                                        --------- GRAMS / MILE ---------          ECON
 NO.   YR MAKE CID   ENGINE FAMILY          HC     CO      CO2    NOxc    CH4          MPG
----   -- ---- ---  ----------------      -----  -----   -----   -----   ----         ----
8383   78 FORD 200 F200B1X95 / AB      (CON'T)

            COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .05%, HC 70 PPM.

            SEQ#15 FEDERAL TEST PROC.     0.87     5.3   506.4    2.03                 17.2
            SEQ#15 50 MPH CRUISE          14.1    0.01           195.0
            SEQ#15 HIGHWAY FUEL ECON.     0.19     1.2   407.1    1.57                 21.7
            SEQ#15 4 SPD IDLE (NEUT)      16.7    0.00            47.7
            SEQ#15 4 SPD IDLE (2500)      47.4    0.01            46.0
            SEQ#15 4 SPD IDLE (NEUT)       5.9    0.00            57.5
            SEQ#15 4 SPD IDLE (DRIV)       5.9    0.00           167.5
            SEQ#15 FED 2 MODE (30)        52.0    0.00           107.2
            SEQ#15 FED 2 MODE (NEUT)       9.5    0.00            53.7

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    26   CO:  0.04   GAIN:  80

8384   78 FORD 351 F351WC2X132LB

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:   446   CO: 10.11   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.    10.12   131.7   539.7    1.71                 11.4
            SEQ#11 50 MPH CRUISE          29.6    0.01           350.8
            SEQ#11 HIGHWAY FUEL ECON.     1.18    11.0   409.1    1.50                 20.6
            SEQ#11 4 SPD IDLE (NEUT)     585.0   10.41            14.4
            SEQ#11 4 SPD IDLE (2500)      22.3    0.03           105.7
            SEQ#11 4 SPD IDLE (NEUT)     553.5   10.78             7.9
            SEQ#11 4 SPD IDLE (DRIV)     619.0   11.48             8.8
            SEQ#11 FED 2 MODE (30)       229.2    0.39           229.5
            SEQ#11 FED 2 MODE (NEUT)     716.9   11.05            12.6

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.     1.52    11.0   649.9    2.20                 13.2
            SEQ#12 50 MPH CRUISE          30.9    0.01           417.5
            SEQ#12 HIGHWAY FUEL ECON.     0.24     0.7   436.3    1.61                 20.3
            SEQ#12 4 SPD IDLE (NEUT)      10.8    0.01            82.5
            SEQ#12 4 SPD IDLE (2500)      32.2    0.03           124.9
            SEQ#12 4 SPD IDLE (NEUT)       0.0    0.02           101.1
            SEQ#12 4 SPD IDLE (DRIV)       0.0    0.01           247.7
            SEQ#12 FED 2 MODE (30)        49.3    0.01           286.1
            SEQ#12 FED 2 MODE (NEUT)      16.4    0.00            91.8

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                        AUTOMOTIVE TESTING LABORATORIES,INC.

                              TEXAS PILOT I/M STUDY


                              LISTING OF TEST RESULTS
                                    HOUSTON #2

                                                        EMISSION RESULTS              FUEL
VEH.                                            --------- GRAMS / MILE ----------     ECON
 NO.  YR MAKE CID     ENGINE FAMILY             HC      CO      CO2    NOxc   CH4     MPG
----  -- ---- ---  ----------------           -----   -----   ------  -----  ----    ---
8384  78 FORD 351 F351WC2X132LB    (CON'T)

          COMMENT : IDLE DRIVE 600 RPM, CO .01%, HC 50 PPM.

          SEQ#15 FEDERAL TEST PROC.    0.92     8.3    667.9   2.40           13.0
          SEQ#15 50 MPH CRUISE        22.0     0.01           296.2
          SEQ#15 HIGHWAY FUEL ECON.    0.24     0.8    450.7   1.78           19.6
          SEQ#15 4 SPD IDLE (NEUT)    10.5     0.00            59.5
          SEQ#15 4 SPD IDLE (2500)     5.3     0.02            78.4
          SEQ#15 4 SPD IDLE (NEUT)     0.0     0.01            61.5
          SEQ#15 4 SPD IDLE (DRIV)     0.0     0.00           168.3
          SEQ#15 FED 2 MODE (30)      32.9     0.00           179.1
          SEQ#15 FED 2 MODE (NEUT)    13.5     0.01            59.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                    FILTER, PCV VALVE AND FILTER, FUEL FILTER, AIR
                    FILTER ELEMENT.  ADJUSTED TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    1.08     7.4    653.2   2.33           13.3
          SEQ#16 50 MPH CRUISE        26.9     0.01           282.0
          SEQ#16 HIGHWAY FUEL ECON.    0.25     0.4    436.0   1.90           20.3
          SEQ#16 4 SPD IDLE (NEUT)    15.4     0.00            60.8
          SEQ#16 4 SPD IDLE (2500)    10.8     0.02            77.4
          SEQ#16 4 SPD IDLE (NEUT)     0.3     0.01            63.0
          SEQ#16 4 SPD IDLE (DRIV)     1.3     0.01           158.5
          SEQ#16 FED 2 MODE (30)      40.4     0.00           168.8
          SEQ#16 FED 2 MODE (NEUT)    13.5     0.00            58.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   54  CO:  0.03   GAIN: 310

8387  78 CADI 425 860V4UEBFC8BFV

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  331  CO:  4.36   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    2.69    53.3    632.1   2.18           12.3
          SEQ#11 50 MPH CRUISE         8.2     0.01           620.7
          SEQ#11 HIGHWAY FUEL ECON.    0.29     3.7    453.3   2.49           19.3
          SEQ#11 4 SPD IDLE (NEUT)   414.8     3.10            51.2
          SEQ#11 4 SPD IDLE (2500)     0.3     0.01           232.2
          SEQ#11 4 SPD IDLE (NEUT)   379.3     4.50            57.7
          SEQ#11 4 SPD IDLE (DRIV)   311.3     4.24           162.1
          SEQ#11 FED 2 MODE (30)     154.7     1.29           338.7
          SEQ#11 FED 2 MODE (NEUT)   390.4     3.92            53.2

          NO FOLLOW UP LANE TEST DONE



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                     FUEL
VEH.                                          --------- GRAMS / MILE ----------              ECON
 NO.   YR MAKE CID    ENGINE FAMILY             HC       CO      CO2     NOxc    CH4         MPG
----   -- ---- ---  -----------------          -----   -----   -----    -----   ----         ----
8387   78 CADI 425  860V4UEBFC8BFV         (CON'T)

          COMMENT : IDLE DRIVE 600 RPM, PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.     1.22     15.0    649.5    2.14                13.1
          SEQ#12 50 MPH CRUISE           7.9     0.00            631.8
          SEQ#12 HIGHWAY FUEL ECON.     0.10      0.7    458.7    2.50                19.3
          SEQ#12 4 SPD IDLE (NEUT)       3.6     0.00             65.4
          SEQ#12 4 SPD IDLE (2500)       0.0     0.01            204.0
          SEQ#12 4 SPD IDLE (NEUT)      49.7     0.14             25.4
          SEQ#12 4 SPD IDLE (DRIV)      29.6     0.35             60.4
          SEQ#12 FED 2 MODE (30)        13.8     0.01            382.1
          SEQ#12 FED 2 MODE (NEUT)      77.7     0.07             12.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .4%, HC 800 PPM.

          SEQ#13 FEDERAL TEST PROC.     0.54      4.9    649.1    2.38                13.5
          SEQ#13 50 MPH CRUISE           3.6     0.00            648.0
          SEQ#13 HIGHWAY FUEL ECON.     0.06      0.1    460.7    2.58                19.3
          SEQ#13 4 SPD IDLE (NEUT)       3.0     0.00             77.8
          SEQ#13 4 SPD IDLE (2500)       0.0     0.01            207.3
          SEQ#13 4 SPD IDLE (NEUT)      14.8     0.00             81.0
          SEQ#13 4 SPD IDLE (DRIV)       2.0     0.00            189.6
          SEQ#13 FED 2 MODE (30)         5.9     0.01            405.4
          SEQ#13 FED 2 MODE (NEUT)      39.8     0.00             75.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .1%, HC 85 PPM,
                    PROPANE GAIN 630 RPM.

          SEQ#15 FEDERAL TEST PROC.     0.68      7.2    661.2    2.36                13.2
          SEQ#15 50 MPH CRUISE           3.6     0.00            663.8
          SEQ#15 HIGHWAY FUEL ECON.     0.06      0.1    477.1    2.85                18.6
          SEQ#15 4 SPD IDLE (NEUT)       6.2     0.00             77.1
          SEQ#15 4 SPD IDLE (2500)       0.0     0.01            211.9
          SEQ#15 4 SPD IDLE (NEUT)      15.1     0.01             79.1
          SEQ#15 4 SPD IDLE (DRIV)       2.3     0.01            205.2
          SEQ#15 FED 2 MODE (30)        16.1     0.02            425.6
          SEQ#15 FED 2 MODE (NEUT)      38.8     0.00             76.9

          FOLLOW UP LANE TEST:
          CAT: P      FUEL: P
          HC:    25   CO:  0.03   GAIN: 100
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                   FUEL
VEH.                                       --------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc    CH4        MPG
----  -- ---- --- ----------------        -----   ----   ------   -----    ----        ---
8388  78 CHEV 305 810Y2BCCH 8BCV

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  497  CO:  7.84   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.     4.93    90.7    451.8    2.00                   14.5
         SEQ#11 50 MPH CRUISE          24.3    0.06           844.2
         SEQ#11 HIGHWAY FUEL ECON.     0.64     9.0    383.3    2.60                   22.2
         SEQ#11 4 SPD IDLE (NEUT)     492.8    6.78             13.8
         SEQ#11 4 SPD IDLE (2500)      62.9    0.02            301.3
         SEQ#11 4 SPD IDLE (NEUT)     454.9    7.47             22.1
         SEQ#11 4 SPD IDLE (DRIV)     522.0    8.13             17.2
         SEQ#11 FED 2 MODE (30)       213.1    1.51            657.1
         SEQ#11 FED 2 MODE (NEUT)     441.5    6.88             38.3

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE 500 RPM, PROPANE GAIN 50 RPM.

         SEQ#12 FEDERAL TEST PROC.     1.34    15.4    512.4    2.38                   16.4
         SEQ#12 50 MPH CRUISE          17.4    0.01           1139.7
         SEQ#12 HIGHWAY FUEL ECON.     0.20     2.0    374.5    3.10                   23.5
         SEQ#12 4 SPD IDLE (NEUT)      12.8    0.01             74.2
         SEQ#12 4 SPD IDLE (2500)      53.6    0.01            311.4
         SEQ#12 4 SPD IDLE (NEUT)       6.2    0.01             89.5
         SEQ#12 4 SPD IDLE (DRIV)       3.3    0.01            275.0
         SEQ#12 FED 2 MODE (30)        23.6    0.01            669.2
         SEQ#12 FED 2 MODE (NEUT)      22.0    0.01             92.1

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE 500 RPM, CO .4%.

         SEQ#13 FEDERAL TEST PROC.     2.21    20.7    491.0    2.36                   16.7
         SEQ#13 50 MPH CRUISE          14.1    0.01           1082.1
         SEQ#13 HIGHWAY FUEL ECON.     0.24     2.4    377.9    3.05                   23.2
         SEQ#13 4 SPD IDLE (NEUT)       3.0    0.01             77.5
         SEQ#13 4 SPD IDLE (2500)      54.3    0.01            317.4
         SEQ#13 4 SPD IDLE (NEUT)      70.8    0.23             40.9
         SEQ#13 4 SPD IDLE (DRIV)     265.0    0.48            117.5
         SEQ#13 FED 2 MODE (30)        27.3    0.01            843.1
         SEQ#13 FED 2 MODE (NEUT)       9.5    0.01             67.2

         NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

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                                                      EMISSION RESULTS                     FUEL
VEH.                                       --------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID     ENGINE FAMILY         HC      CO      CO2      NOxc      CH4         MPG
----   -- ---- ---  ----------------       -----   -----   ------    -----     ----         ---
8388   78 CHEV 305  810Y2BCCH 8BCV     (CON'T)

            COMMENT : IDLE DRIVE 500 RPM.

            SEQ#15 FEDERAL TEST PROC.     1.61    14.1    503.0     2.46                   16.7
            SEQ#15 50 MPH CRUISE         14.1     0.01            1044.6
            SEQ#15 HIGHWAY FUEL ECON.     0.18     1.8    385.6     3.32                   22.8
            SEQ#15 4 SPD IDLE (NEUT)      9.2     0.01              78.2
            SEQ#15 4 SPD IDLE (2500)     47.7     0.02             305.3
            SEQ#15 4 SPD IDLE (NEUT)      8.5     0.01              94.9
            SEQ#15 4 SPD IDLE (DRIV)      4.3     0.01             234.5
            SEQ#15 FED 2 MODE (30)       18.1     0.01             776.4
            SEQ#15 FED 2 MODE (NEUT)     12.5     0.01              84.9

            NO FOLLOW UP LANE TEST DONE

            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                      FILTER, PCV VALVE AND FILTER, FUEL AND PURGE
                      CANISTER FILTERS, VALVE COVER GASKETS.  ADJUSTED
                      VALVES AND SET TO SPEC.

            SEQ#16 FEDERAL TEST PROC.     1.83    17.2    497.5     2.15                   16.7
            SEQ#16 50 MPH CRUISE         17.7     0.01             885.6
            SEQ#16 HIGHWAY FUEL ECON.     0.17     1.7    388.5     2.86                   22.7
            SEQ#16 4 SPD IDLE (NEUT)     13.1     0.00              71.2
            SEQ#16 4 SPD IDLE (2500)     13.5     0.01             262.8
            SEQ#16 4 SPD IDLE (NEUT)      7.5     0.00              80.8
            SEQ#16 4 SPD IDLE (DRIV)      3.3     0.00             220.4
            SEQ#16 FED 2 MODE (30)       25.3     0.01             656.1
            SEQ#16 FED 2 MODE (NEUT)     16.7     0.00              74.7

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  262  CO:  0.89   GAIN:  30

8392   78 OLDS 260 830H2U8DPO8BDV

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:  318  CO:  3.79   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.     1.31    17.5    477.6     1.89                   17.4
            SEQ#11 50 MPH CRUISE         16.1     0.00             606.6
            SEQ#11 HIGHWAY FUEL ECON.     0.19     1.4    367.9     2.45                   23.9
            SEQ#11 4 SPD IDLE (NEUT)    199.1     1.55              30.2
            SEQ#11 4 SPD IDLE (2500)     28.9     0.01             113.9
            SEQ#11 4 SPD IDLE (NEUT)    180.7     1.57              29.8
            SEQ#11 4 SPD IDLE (DRIV)    156.3     1.73              53.8
            SEQ#11 FED 2 MODE (30)       27.9     0.02             434.7
            SEQ#11 FED 2 MODE (NEUT)    198.1     1.75              40.1

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

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                                                    EMISSION RESULTS                FUEL
VEH.                                     ---------- GRAMS / MILE -----------        ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC       CO      CO2    NOXC    CH4     MPG
----  -- ---- --- ------------------      ----     ----    -----   -----   ----    ----
8392  78 OLDS 260 830H2U8DPO8BDV      (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 500 RPM, PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.     0.90      6.8    506.1    2.09            17.1
          SEQ#12 50 MPH CRUISE         15.4      0.00            620.7
          SEQ#12 HIGHWAY FUEL ECON.     0.10      0.3    379.1    2.63            23.4
          SEQ#12 4 SPD IDLE (NEUT)      5.9      0.00             43.2
          SEQ#12 4 SPD IDLE (2500)      9.5      0.00            118.3
          SEQ#12 4 SPD IDLE (NEUT)      5.3      0.00             41.3
          SEQ#12 4 SPD IDLE (DRIV)      1.0      0.00             90.8
          SEQ#12 FED 2 MODE (30)       14.1      0.01            392.2
          SEQ#12 FED 2 MODE (NEUT)     19.7      0.01             34.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 500 RPM, CO .15%, HC 280 PPM,
                    PROPANE GAIN 40 RPM.

          SEQ#15 FEDERAL TEST PROC.     0.54      3.2    492.6    2.04            17.8
          SEQ#15 50 MPH CRUISE         11.5      0.00            654.1
          SEQ#15 HIGHWAY FUEL ECON.     0.09      0.4    367.1    2.61            24.1
          SEQ#15 4 SPD IDLE (NEUT)      6.2      0.00             30.6
          SEQ#15 4 SPD IDLE (2500)      8.5      0.00            111.1
          SEQ#15 4 SPD IDLE (NEUT)      5.3      0.00             34.7
          SEQ#15 4 SPD IDLE (DRIV)      2.6      0.00             56.5
          SEQ#15 FED 2 MODE (30)       12.8      0.01            428.6
          SEQ#15 FED 2 MODE (NEUT)     12.8      0.00             34.7

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  137  CO:  0.09   GAIN: 105

8393  78 OLDS 260 830H2U8DPO8BDV

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  237  CO:  2.94   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     2.63     53.7    457.5    1.13            16.1
          SEQ#11 50 MPH CRUISE         52.3      0.16            410.4
          SEQ#11 HIGHWAY FUEL ECON.     0.71     16.9    361.8    1.70            22.7
          SEQ#11 4 SPD IDLE (NEUT)    158.3      1.53             35.8
          SEQ#11 4 SPD IDLE (2500)     23.0      0.01            142.9
          SEQ#11 4 SPD IDLE (NEUT)    163.3      1.66             34.5
          SEQ#11 4 SPD IDLE (DRIV)    170.7      1.96             56.2
          SEQ#11 FED 2 MODE (30)       30.9      0.02            216.3
          SEQ#11 FED 2 MODE (NEUT)    170.7      2.15             26.4

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8393	78	OLDS	260	830H2U8DP08BDV	(CON'T)					

COMMENT : ADJUSTED IDLE DRIVE 500 RPM, PROPANE GAIN 50 RPM. USED UNIVERSAL CO METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	1.32	34.4	482.2	1.10		16.4
SEQ#12 50 MPH CRUISE	44.4	0.19		328.6		
SEQ#12 HIGHWAY FUEL ECON.	0.69	20.0	366.5	1.65		22.2
SEQ#12 4 SPD IDLE (NEUT)	14.8	0.00		41.6		
SEQ#12 4 SPD IDLE (2500)	17.4	0.01		146.5		
SEQ#12 4 SPD IDLE (NEUT)	11.2	0.00		43.1		
SEQ#12 4 SPD IDLE (DRIV)	7.2	0.00		98.3		
SEQ#12 FED 2 MODE (30)	16.7	0.02		221.4		
SEQ#12 FED 2 MODE (NEUT)	21.3	0.00		38.2		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC, PROPANE ENRICHED SPEED 560-580 IN DRIVE, IDLE SPEED 500 DRIVE. TIMING WAS RESET FROM 25 TO 21 AS RECOMMENDED BY MANUFACTURER.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.43	46.9	517.3	0.61		14.9
SEQ#15 50 MPH CRUISE	51.6	0.50		144.4		
SEQ#15 HIGHWAY FUEL ECON.	1.29	44.5	394.7	0.69		18.9
SEQ#15 4 SPD IDLE (NEUT)	4.6	0.00		25.4		
SEQ#15 4 SPD IDLE (2500)	0.0	0.01		57.9		
SEQ#15 4 SPD IDLE (NEUT)	5.3	0.00		31.1		
SEQ#15 4 SPD IDLE (DRIV)	0.0	0.00		42.1		
SEQ#15 FED 2 MODE (30)	54.9	0.60		70.5		
SEQ#15 FED 2 MODE (NEUT)	12.1	0.00		24.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR, FUEL, OIL AND CRANKCASE BREATHER FILTERS., CHARCOAL CANISTER FILTER, PCV VALVE. ADJUSTED IDLE SPEED AND MIXTURE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	1.41	51.0	503.8	0.50		15.1
SEQ#16 50 MPH CRUISE	43.1	0.39		122.6		
SEQ#16 HIGHWAY FUEL ECON.	1.09	37.4	374.8	0.59		20.3
SEQ#16 4 SPD IDLE (NEUT)	11.2	0.00		18.6		
SEQ#16 4 SPD IDLE (2500)	3.9	0.00		84.6		
SEQ#16 4 SPD IDLE (NEUT)	7.9	0.00		21.3		
SEQ#16 4 SPD IDLE (DRIV)	0.7	0.00		27.3		
SEQ#16 FED 2 MODE (30)	36.5	0.28		48.9		
SEQ#16 FED 2 MODE (NEUT)	17.4	0.00		20.3		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 36 CO: 0.07 GAIN: 205

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
8398	78	PONT	301	820S4BFPB 8BFV						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 481 CO: 5.23 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	2.26	37.9	526.1	2.43		15.0
SEQ#11 50 MPH CRUISE	17.7	0.01		796.6		
SEQ#11 HIGHWAY FUEL ECON.	0.32	2.7	394.8	3.43		22.2
SEQ#11 4 SPD IDLE (NEUT)	268.8	3.81		50.2		
SEQ#11 4 SPD IDLE (2500)	66.8	0.33		178.8		
SEQ#11 4 SPD IDLE (NEUT)	287.7	3.59		53.3		
SEQ#11 4 SPD IDLE (DRIV)	280.9	4.16		80.5		
SEQ#11 FED 2 MODE (30)	96.9	0.05		514.6		
SEQ#11 FED 2 MODE (NEUT)	273.9	3.46		59.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 550 RPM, PROPANE GAIN 40 RPM.
USED UNIVERSAL PROPANE METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	1.58	11.3	521.2	2.62		16.3
SEQ#12 50 MPH CRUISE	20.4	0.00		818.9		
SEQ#12 HIGHWAY FUEL ECON.	0.16	0.6	400.5	3.55		22.1
SEQ#12 4 SPD IDLE (NEUT)	372.7	0.29		27.0		
SEQ#12 4 SPD IDLE (2500)	16.4	0.02		178.6		
SEQ#12 4 SPD IDLE (NEUT)	260.6	0.17		22.3		
SEQ#12 4 SPD IDLE (DRIV)	160.0	0.35		75.1		
SEQ#12 FED 2 MODE (30)	25.3	0.01		474.1		
SEQ#12 FED 2 MODE (NEUT)	51.3	0.01		64.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 550 RPM, PROPANE GAIN 590 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	0.96	8.5	551.3	2.56		15.6
SEQ#15 50 MPH CRUISE	16.1	0.01		697.5		
SEQ#15 HIGHWAY FUEL ECON.	0.13	0.5	384.2	3.40		23.0
SEQ#15 4 SPD IDLE (NEUT)	10.2	0.01		71.3		
SEQ#15 4 SPD IDLE (2500)	5.9	0.02		175.0		
SEQ#15 4 SPD IDLE (NEUT)	16.7	0.01		75.6		
SEQ#15 4 SPD IDLE (DRIV)	3.0	0.01		134.2		
SEQ#15 FED 2 MODE (30)	22.3	0.01		447.8		
SEQ#15 FED 2 MODE (NEUT)	57.9	0.01		67.7		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                       AUTOMOTIVE TESTING LABORATORIES,INC.

                              TEXAS PILOT I/M STUDY


                              LISTING OF TEST RESULTS
                                   HOUSTON #2

                                                      EMISSION RESULTS               FUEL
VEH.                                         --------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- ---  -----------------      ----    ----    -----   -----   ----     ----
8398   78 PONT 301 820S4BFPB 8BFV    (CON'T)

             COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR AND
                       FUEL FILTER, PCV VALVE AND BREAHTER FILTERS, OIL
                       AND OIL FILTER CARBON CANISTER FILTER, ADJUSTED
                       TIMING, IDLE DRIVE AND IDLE MIXTURE.

             SEQ#16 FEDERAL TEST PROC.     1.53    13.5    541.5    2.50            15.6
             SEQ#16 50 MPH CRUISE          23.3    0.01           781.4
             SEQ#16 HIGHWAY FUEL ECON.     0.26     2.4    391.2    3.54            22.4
             SEQ#16 4 SPD IDLE (NEUT)      27.3    0.00             69.4
             SEQ#16 4 SPD IDLE (2500)       8.5    0.01            191.4
             SEQ#16 4 SPD IDLE (NEUT)      32.9    0.00             82.9
             SEQ#16 4 SPD IDLE (DRIV)      10.2    0.00            141.9
             SEQ#16 FED 2 MODE (30)        77.4    0.23            280.0
             SEQ#16 FED 2 MODE (NEUT)      95.2    0.01             68.5

             FOLLOW UP LANE TEST:
             CAT: P     FUEL: P
             HC:   51   CO:  0.00   GAIN:  30

7402   77 DODG 360 FD-360-2-C

             PRELIMINARY LANE TEST:
             CAT: F     FUEL: P
             HC:  172   CO:  3.29   GAIN:  13

             SEQ#11 FEDERAL TEST PROC.     7.37    52.7    570.1    4.63            13.1
             SEQ#11 50 MPH CRUISE          79.0    0.13           1803.5
             SEQ#11 HIGHWAY FUEL ECON.     2.35     9.6    412.0    6.79            20.4
             SEQ#11 4 SPD IDLE (NEUT)    1600.3    2.25             49.9
             SEQ#11 4 SPD IDLE (2500)    1401.2    0.19            327.5
             SEQ#11 4 SPD IDLE (NEUT)    1340.9    2.14             53.7
             SEQ#11 4 SPD IDLE (DRIV)    1469.5    1.70             69.3
             SEQ#11 FED 2 MODE (30)      1143.4    0.17           1057.1
             SEQ#11 FED 2 MODE (NEUT)    1211.9    2.42             53.4

             NO FOLLOW UP LANE TEST DONE

             COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, FUEL ,AIR,
                       OIL FILTERS, EGR VALVE, VACUUM DELAY SOLENOID,
                       HEATER HOSE, PCV VALVE. ADJUSTED TIMING & IDLE
                       SPEED TO SPEC. REPLACED IGNITION VALVE, UNPLUGGED
                       ASPIRATOR HOSE, ADJUSTED IDLE MIXTURE.

             SEQ#16 FEDERAL TEST PROC.     2.19    24.8    633.9    3.62            13.1
             SEQ#16 50 MPH CRUISE           8.2    0.14            913.9
             SEQ#16 HIGHWAY FUEL ECON.     1.33     6.2    421.7    9.15            20.4
             SEQ#16 4 SPD IDLE (NEUT)     255.4    0.21             42.1
             SEQ#16 4 SPD IDLE (2500)       8.9    0.09            203.2
             SEQ#16 4 SPD IDLE (NEUT)     150.0    0.16             42.5
             SEQ#16 4 SPD IDLE (DRIV)      74.7    0.17             64.2
             SEQ#16 FED 2 MODE (30)        17.1    0.10            341.7
             SEQ#16 FED 2 MODE (NEUT)     236.6    0.21             41.1

             FOLLOW UP LANE TEST:
             CAT: F     FUEL: P
             HC: 1490   CO:  0.16   GAIN: 140

    [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2
                                                      EMISSION RESULTS            FUEL
VEH.                                         --------- GRAMS / MILE ----------    ECON
 NO.   YR MAKE CID    ENGINE FAMILY            HC      CO     CO2     NOxc   CH4   MPG
----   -- ---- --- -----------------         -----   -----  ------  -----   ----  ----
7404   77 MERC 302 F302D1CV5

               PRELIMINARY LANE TEST:
               CAT: P      FUEL: P
               HC:  348   CO:  2.33   GAIN:   0

               SEQ#11 FEDERAL TEST PROC.     5.33    73.0   521.6    2.22          13.6
               SEQ#11 50 MPH CRUISE        195.4     1.26          906.8
               SEQ#11 HIGHWAY FUEL ECON.     2.22    30.4   395.7    3.06          19.7
               SEQ#11 4 SPD IDLE (NEUT)    348.4     2.04           72.2
               SEQ#11 4 SPD IDLE (2500)    234.6     1.48          169.6
               SEQ#11 4 SPD IDLE (NEUT)    368.3     2.41           75.3
               SEQ#11 4 SPD IDLE (DRIV)    381.6     3.03          153.9
               SEQ#11 FED 2 MODE (30)      252.3     0.98          470.1
               SEQ#11 FED 2 MODE (NEUT)    344.0     2.37           71.1

               NO FOLLOW UP LANE TEST DONE


               COMMENT : IDLE SPEED 980 RPMS NEUTRAL, PROPANE GAIN 65 RPMS.

               SEQ#12 FEDERAL TEST PROC.     3.61    50.4   540.0    2.06          14.1
               SEQ#12 50 MPH CRUISE        108.5     0.70          437.7
               SEQ#12 HIGHWAY FUEL ECON.     2.01    30.7   389.5    2.96          20.0
               SEQ#12 4 SPD IDLE (NEUT)     59.6     0.01           64.1
               SEQ#12 4 SPD IDLE (2500)    112.8     0.40           94.4
               SEQ#12 4 SPD IDLE (NEUT)     31.5     0.01           71.5
               SEQ#12 4 SPD IDLE (DRIV)     26.0     0.01          190.1
               SEQ#12 FED 2 MODE (30)       53.3     0.08          240.9
               SEQ#12 FED 2 MODE (NEUT)     48.7     0.01           68.2

               NO FOLLOW UP LANE TEST DONE


               COMMENT : IDLE MIXTURE AND SPEED WERE WITHIN EMISSION DECAL
                         CRITERIA FOR PROPANE ENRICHMENT RPM/RESET
                         READINGS SO NO ADJUSTMENTS WERE NECESSARY.

               SEQ#15 FEDERAL TEST PROC.     2.89    38.1   548.5    2.33          14.4
               SEQ#15 50 MPH CRUISE         87.0     0.60          536.8
               SEQ#15 HIGHWAY FUEL ECON.     1.71    24.9   384.6    2.87          20.7
               SEQ#15 4 SPD IDLE (NEUT)     58.2     0.00           71.9
               SEQ#15 4 SPD IDLE (2500)     92.6     0.37          104.7
               SEQ#15 4 SPD IDLE (NEUT)     20.4     0.00           82.2
               SEQ#15 4 SPD IDLE (DRIV)     18.1     0.00          291.1
               SEQ#15 FED 2 MODE (30)       33.5     0.05          246.7
               SEQ#15 FED 2 MODE (NEUT)     37.1     0.00           73.3

               FOLLOW UP LANE TEST:
               CAT: P      FUEL: P
               HC:   83   CO:  0.06   GAIN: 150




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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LISTING OF TEST RESULTS
HOUSTON #2

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                                                    EMISSION RESULTS                    FUEL
VEH.                                     ---------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2      NOxc    CH4     MPG
----   -- ---- ---  ----------------     -----   -----   ------   -----   ----     ----
7404   77 MERC 302 F302D1CV5      (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED FUEL, OIL AND CRANKCASE
                     BREATHER FILTERS, SPARK PLUGS, PCV VALVE AND
                     ENGINE OIL.  ADDITIONAL PARTS INCLUDED PCV FRESH
                     AIR HOSE AND FITTING BETWEEN HOSE AND BREATHER
                     ELEMENT.

           SEQ#16 FEDERAL TEST PROC.    2.93    41.8    550.1     2.23             14.2
           SEQ#16 50 MPH CRUISE        97.6     0.67            702.6
           SEQ#16 HIGHWAY FUEL ECON.    1.74    25.8    393.3     3.15             20.2
           SEQ#16 4 SPD IDLE (NEUT)    69.1     0.00            104.4
           SEQ#16 4 SPD IDLE (2500)   138.0     0.45            113.9
           SEQ#16 4 SPD IDLE (NEUT)    26.9     0.00            109.3
           SEQ#16 4 SPD IDLE (DRIV)    13.5     0.00            417.5
           SEQ#16 FED 2 MODE (30)      62.2     0.09            312.4
           SEQ#16 FED 2 MODE (NEUT)    50.0     0.00             96.5

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:  117   CO:  0.04   GAIN: 120

7405   77 MERC 460 F460B2CV4

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC: 1065   CO:  0.06   GAIN: 160

           SEQ#11 FEDERAL TEST PROC.    6.26    23.7    902.2     1.38              9.3
           SEQ#11 50 MPH CRUISE         8.9     0.12            246.7
           SEQ#11 HIGHWAY FUEL ECON.    0.68     5.4    600.1     1.81             14.5
           SEQ#11 4 SPD IDLE (NEUT)  1360.8     0.05             54.8
           SEQ#11 4 SPD IDLE (2500)   190.0     0.07            105.7
           SEQ#11 4 SPD IDLE (NEUT)   955.4     0.05             48.1
           SEQ#11 4 SPD IDLE (DRIV)   705.5     0.07             77.3
           SEQ#11 FED 2 MODE (30)     273.7     0.09            182.9
           SEQ#11 FED 2 MODE (NEUT)  1194.5     0.06             49.7

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 650 RPMS,CO .5%,HC 500 PPM,
                     IDLE NEUTRAL 770 RPMS,CO .15%,HC 800 PPM. PROPANE
                     GAIN 110 RPMS.

           SEQ#15 FEDERAL TEST PROC.    5.40    24.2    991.5     1.27              8.5
           SEQ#15 50 MPH CRUISE         4.9     0.07            134.4
           SEQ#15 HIGHWAY FUEL ECON.    0.40     5.8    685.0     0.98             12.8
           SEQ#15 4 SPD IDLE (NEUT)  1271.3     0.05             59.4
           SEQ#15 4 SPD IDLE (2500)    66.8     0.06             70.8
           SEQ#15 4 SPD IDLE (NEUT)   735.3     0.06             34.2
           SEQ#15 4 SPD IDLE (DRIV)   519.7     0.08            126.7
           SEQ#15 FED 2 MODE (30)     121.1     0.16             88.2
           SEQ#15 FED 2 MODE (NEUT)  1058.9     0.06             53.0

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7405	77	MERC	460	F460B2CV4 (CON'T)						

COMMENT : MAJOR TUNE-UP. REPLACED AIR, FUEL, OIL, AND CRANKCASE BREATHER FILTER, SPARK PLUGS, PCV VALVE, AND ENGINE OIL. IDLE SPEED AND TIMING WERE CHECKED.

TEST	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	6.68	19.5	991.1	1.33		8.5
SEQ#16 50 MPH CRUISE	6.2	0.06		158.8		
SEQ#16 HIGHWAY FUEL ECON.	0.98	4.7	587.7	1.79		14.8
SEQ#16 4 SPD IDLE (NEUT)	1566.5	0.05		69.6		
SEQ#16 4 SPD IDLE (2500)	304.4	0.09		102.9		
SEQ#16 4 SPD IDLE (NEUT)	1096.8	0.06		54.6		
SEQ#16 4 SPD IDLE (DRIV)	675.8	0.06		156.5		
SEQ#16 FED 2 MODE (30)	317.6	0.11		221.4		
SEQ#16 FED 2 MODE (NEUT)	1213.6	0.06		57.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 1104 CO: 0.06 GAIN: 200

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
7406	77	BUIC	350	730M4U

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 464 CO: 5.28 GAIN: 10

TEST	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	3.34	43.1	553.8	1.43		14.0
SEQ#11 50 MPH CRUISE	29.2	0.00		403.4		
SEQ#11 HIGHWAY FUEL ECON.	0.35	2.4	417.1	1.72		21.0
SEQ#11 4 SPD IDLE (NEUT)	573.7	3.50		29.3		
SEQ#11 4 SPD IDLE (2500)	30.9	0.00		175.2		
SEQ#11 4 SPD IDLE (NEUT)	490.6	2.96		35.1		
SEQ#11 4 SPD IDLE (DRIV)	370.5	4.78		37.7		
SEQ#11 FED 2 MODE (30)	38.1	0.00		377.1		
SEQ#11 FED 2 MODE (NEUT)	497.3	3.28		33.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE TO 550 RPM, IDLE NEUTRAL TO 680 RPM, CO .4%, HC 850 PPM. USED UNIVERSAL METHOD.

TEST	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	2.21	19.6	575.8	1.48		14.5
SEQ#13 50 MPH CRUISE	5.9	0.00		367.0		
SEQ#13 HIGHWAY FUEL ECON.	0.16	0.6	403.1	1.53		21.9
SEQ#13 4 SPD IDLE (NEUT)	2.3	0.00		39.9		
SEQ#13 4 SPD IDLE (2500)	0.3	0.00		159.8		
SEQ#13 4 SPD IDLE (NEUT)	175.7	0.09		20.1		
SEQ#13 4 SPD IDLE (DRIV)	214.4	0.29		35.1		
SEQ#13 FED 2 MODE (30)	9.5	0.00		326.5		
SEQ#13 FED 2 MODE (NEUT)	348.4	0.09		11.9		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                  EMISSION RESULTS                 FUEL
VEH.                                     --------- GRAMS / MILE ---------          ECON
 NO.   YR MAKE CID   ENGINE FAMILY       HC      CO      CO2     NOxc    CH4       MPG
----   -- ---- ---  ---------------     ----    ----    -----    ----    ----      ----
7406   77 BUIC 350  730M4U    (CON'T)

            COMMENT : ADJUSTED IDLE DRIVE TO 550 RPM, CO .05%, HC 130
                      PPM, IDLE NEUTRAL TO 680 RPM, CO .06%, HC 250 PPM,
                       PROPANE GAIN 120 RPM.

            SEQ#15 FEDERAL TEST PROC.   1.19    13.0    595.5    1.62              14.3
            SEQ#15 50 MPH CRUISE         4.9     0.01           248.7
            SEQ#15 HIGHWAY FUEL ECON.   0.07     0.2    424.1    1.83              20.9
            SEQ#15 4 SPD IDLE (NEUT)     7.9     0.01            26.3
            SEQ#15 4 SPD IDLE (2500)     6.2     0.01           103.1
            SEQ#15 4 SPD IDLE (NEUT)    16.1     0.01            28.4
            SEQ#15 4 SPD IDLE (DRIV)     7.2     0.01            45.9
            SEQ#15 FED 2 MODE (30)       5.3     0.01           203.7
            SEQ#15 FED 2 MODE (NEUT)    27.9     0.00            29.1

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    20  CO:  0.01   GAIN: 120

7407  77 CADI 425 760V4U

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:  528   CO:  6.19   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.   3.64    62.2    604.3    2.97              12.4
            SEQ#11 50 MPH CRUISE        30.9     0.09           435.7
            SEQ#11 HIGHWAY FUEL ECON.   0.76     8.1    451.0    2.54              19.0
            SEQ#11 4 SPD IDLE (NEUT)   667.7     5.30            25.9
            SEQ#11 4 SPD IDLE (2500)    46.7     0.14           143.2
            SEQ#11 4 SPD IDLE (NEUT)   602.1     5.73            38.2
            SEQ#11 4 SPD IDLE (DRIV)   402.9     5.84            83.1
            SEQ#11 FED 2 MODE (30)     155.0     1.57          1214.9
            SEQ#11 FED 2 MODE (NEUT)   679.1     5.00            44.0

            NO FOLLOW UP LANE TEST DONE

            COMMENT : CONNECTED PCV FILTER, PROPANE GAIN 50 RPM, IDLE
                      NEUTRAL WITHOUT PROPANE 750 RPM, WITH PROPANE 800
                      RPM.

            SEQ#12 FEDERAL TEST PROC.   2.04    20.6    639.3    2.94              13.1
            SEQ#12 50 MPH CRUISE        18.4     0.00           603.5
            SEQ#12 HIGHWAY FUEL ECON.   0.38     2.9    453.4    2.57              19.3
            SEQ#12 4 SPD IDLE (NEUT)   475.2     0.54            48.5
            SEQ#12 4 SPD IDLE (2500)    15.1     0.04           132.4
            SEQ#12 4 SPD IDLE (NEUT)   346.6     1.24            59.9
            SEQ#12 4 SPD IDLE (DRIV)   229.3     1.72           218.6
            SEQ#12 FED 2 MODE (30)     142.4     1.27          1405.3
            SEQ#12 FED 2 MODE (NEUT)   437.9     0.20            53.0

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                      FUEL
                                         ---------- GRAMS / MILE -----------               ECON
VEH.
 NO.   YR MAKE CID    ENGINE FAMILY       HC       CO       CO2      NOxc      CH4      MPG
----   -- ---- --- -----------------    -----    -----    ------    -----     ----     ---
7407   77 CADI 425 760V4U     (CON'T)

            COMMENT : CO .5%, IDLE RPM 780 NEUTRAL HC 430 PPM.

            SEQ#13 FEDERAL TEST PROC.    2.97     26.4     657.4     3.18               12.5
            SEQ#13 50 MPH CRUISE        21.7      0.01              593.4
            SEQ#13 HIGHWAY FUEL ECON.    0.35      3.3     462.4     2.87               18.9
            SEQ#13 4 SPD IDLE (NEUT)   499.5      1.38               38.0
            SEQ#13 4 SPD IDLE (2500)    75.4      0.88              120.8
            SEQ#13 4 SPD IDLE (NEUT)   338.0      1.36               51.1
            SEQ#13 4 SPD IDLE (DRIV)   232.2      1.63              173.7
            SEQ#13 FED 2 MODE (30)     140.0      1.19             1267.5
            SEQ#13 FED 2 MODE (NEUT)   535.0      0.65               56.0

            NO FOLLOW UP LANE TEST DONE


            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .3%, HC 800 PPM,
                      PROPANE GAIN 130 RPM.

            SEQ#15 FEDERAL TEST PROC.    0.88      5.5     683.7     3.10               12.8
            SEQ#15 50 MPH CRUISE        16.1      0.01              536.8
            SEQ#15 HIGHWAY FUEL ECON.    0.14      0.6     464.0     2.59               19.1
            SEQ#15 4 SPD IDLE (NEUT)    34.5      0.01               96.7
            SEQ#15 4 SPD IDLE (2500)     8.2      0.01              131.9
            SEQ#15 4 SPD IDLE (NEUT)    70.8      0.01              105.4
            SEQ#15 4 SPD IDLE (DRIV)    11.2      0.01              265.9
            SEQ#15 FED 2 MODE (30)     102.5      0.76             1337.6
            SEQ#15 FED 2 MODE (NEUT)   196.7      0.01              109.3

            NO FOLLOW UP LANE TEST DONE


            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                      FUEL FILTER, PCV VALVE, CRANKCASE BREATHER FILTER,
                       ENGINE OIL & FILTER.  ADJUSTED TIMING, CHOKE,
                      IDLE MIXTURE & SPEED TO SPEC.

            SEQ#16 FEDERAL TEST PROC.    0.61      5.6     675.6     2.65               12.9
            SEQ#16 50 MPH CRUISE        21.7      0.01              371.0
            SEQ#16 HIGHWAY FUEL ECON.    0.09      0.5     449.1     1.97               19.7
            SEQ#16 4 SPD IDLE (NEUT)    43.4      0.00               67.9
            SEQ#16 4 SPD IDLE (2500)     5.6      0.01              114.7
            SEQ#16 4 SPD IDLE (NEUT)    30.6      0.01               75.7
            SEQ#16 4 SPD IDLE (DRIV)     9.5      0.01              200.4
            SEQ#16 FED 2 MODE (30)      18.7      0.02             1239.9
            SEQ#16 FED 2 MODE (NEUT)   131.4      0.00               84.2

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    51  CO:  0.03   GAIN: 144
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
7408	77	CHEV	305	710Y2						

EMISSION RESULTS — GRAMS / MILE

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 603 CO: 8.09 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	3.54	67.8	586.0	1.85		12.6
SEQ#11 50 MPH CRUISE	27.9	0.01		338.7		
SEQ#11 HIGHWAY FUEL ECON.	0.52	8.0	430.2	1.81		20.0
SEQ#11 4 SPD IDLE (NEUT)	417.0	5.73		25.6		
SEQ#11 4 SPD IDLE (2500)	43.7	0.02		147.8		
SEQ#11 4 SPD IDLE (NEUT)	341.8	5.48		37.1		
SEQ#11 4 SPD IDLE (DRIV)	392.6	6.28		39.3		
SEQ#11 FED 2 MODE (30)	71.4	0.00		188.3		
SEQ#11 FED 2 MODE (NEUT)	392.6	5.73		34.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 500 RPMS, IDLE NEUTRAL 590 RPMS, PROPANE GAIN 50 RPMS. USED UNIVERSAL METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	1.33	11.4	822.3	2.74		10.5
SEQ#12 50 MPH CRUISE	31.9	0.46		360.9		
SEQ#12 HIGHWAY FUEL ECON.	0.53	9.2	586.0	3.14		14.7
SEQ#12 4 SPD IDLE (NEUT)	26.3	0.00		38.2		
SEQ#12 4 SPD IDLE (2500)	15.1	0.00		55.[illegible]		
SEQ#12 4 SPD IDLE (NEUT)	49.7	0.00		41.3		
SEQ#12 4 SPD IDLE (DRIV)	35.8	0.00		74.9		
SEQ#12 FED 2 MODE (30)	15.4	0.04		394.3		
SEQ#12 FED 2 MODE (NEUT)	52.6	0.00		42.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE MIXTURE AND SPEED ADJUSTED TO MANUFACTURERS SPECS. LEAN DROP FROM 550 TO 500 RPMS IN DRIVE.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	1.43	9.7	710.0	2.22		12.2
SEQ#15 50 MPH CRUISE	44.4	0.00		198.1		
SEQ#15 HIGHWAY FUEL ECON.	0.28	1.8	421.7	1.73		20.9
SEQ#15 4 SPD IDLE (NEUT)	67.8	0.00		23.3		
SEQ#15 4 SPD IDLE (2500)	31.5	0.00		87.8		
SEQ#15 4 SPD IDLE (NEUT)	70.4	0.00		26.8		
SEQ#15 4 SPD IDLE (DRIV)	47.7	0.00		59.1		
SEQ#15 FED 2 MODE (30)	48.0	0.00		117.2		
SEQ#15 FED 2 MODE (NEUT)	98.6	0.00		24.7		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                     AUTOMOTIVE TESTING LABORATORIES,INC.

                             TEXAS PILOT I/M STUDY


                               LISTING OF TEST RESULTS
                                    HOUSTON #2

                                                      EMISSION RESULTS                FUEL
VEH.                                         -------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY           HC     CO      CO2     NOxc    CH4     MPG
----   -- ---- ---  ----------------        -----  -----   -----   -----   ----    ----
7408   77 CHEV 305  710Y2     (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                     OIL, CRANKCASE BREATHER FILTERS, PCV VALVE,
                     ENGINE OIL.  ADJUSTED IDLE SPEED AND TIMING.

           SEQ#16 FEDERAL TEST PROC.    1.18    7.1   666.5    2.12            13.0
           SEQ#16 50 MPH CRUISE         16.4   0.00          226.0
           SEQ#16 HIGHWAY FUEL ECON.    0.24    1.1   424.3    1.86            20.8
           SEQ#16 4 SPD IDLE (NEUT)     51.0   0.00           25.6
           SEQ#16 4 SPD IDLE (2500)     1.5    0.01           94.2
           SEQ#16 4 SPD IDLE (NEUT)     60.9   0.00           25.1
           SEQ#16 4 SPD IDLE (DRIV)     29.6   0.00           44.4
           SEQ#16 FED 2 MODE (30)       26.0   0.01          125.2
           SEQ#16 FED 2 MODE (NEUT)     69.1   0.00           29.9

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   72  CO:  0.02   GAIN: 120

7410   77 OLDS 350  730M4U

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  453  CO:  3.76   GAIN:  0

           SEQ#11 FEDERAL TEST PROC.    2.31   41.1   685.6    1.76            11.7
           SEQ#11 50 MPH CRUISE          8.2   0.01          249.7
           SEQ#11 HIGHWAY FUEL ECON.    0.33    5.6   501.6    1.57            17.4
           SEQ#11 4 SPD IDLE (NEUT)    428.1   3.28           31.2
           SEQ#11 4 SPD IDLE (2500)    133.7   0.01          177.5
           SEQ#11 4 SPD IDLE (NEUT)    528.7   3.70           35.0
           SEQ#11 4 SPD IDLE (DRIV)    337.4   4.37           59.6
           SEQ#11 FED 2 MODE (30)       38.8   0.01          166.2
           SEQ#11 FED 2 MODE (NEUT)    479.4   3.37           38.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 60 RPM.
                     USED UNIVERSAL PROPANE METHOD.

           SEQ#12 FEDERAL TEST PROC.    1.37   26.7   715.3    2.06            11.7
           SEQ#12 50 MPH CRUISE         15.4   0.00          358.9
           SEQ#12 HIGHWAY FUEL ECON.    0.16    4.6   543.4    1.90            16.1
           SEQ#12 4 SPD IDLE (NEUT)     14.1   0.00           44.3
           SEQ#12 4 SPD IDLE (2500)     30.6   0.00          148.5
           SEQ#12 4 SPD IDLE (NEUT)     10.2   0.00           44.6
           SEQ#12 4 SPD IDLE (DRIV)      2.6   0.00          189.3
           SEQ#12 FED 2 MODE (30)       27.3   0.00          216.0
           SEQ#12 FED 2 MODE (NEUT)     28.3   0.00           43.1

           NO FOLLOW UP LANE TEST DONE


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                  AUTOMOTIVE TESTING LABORATORIES,INC.

                         TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                                   EMISSION RESULTS              FUEL
                                         --------- GRAMS / MILE ----------        ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4     MPG
----  -- ---- --- ------------------    ----    -----   ------   -----   ----    ----
7410  77 OLDS 350 730M4U     (CON'T)

         COMMENT : IDLE MIXTURE AND SPEED SET TO MANUFACTURERS SPEC.

         SEQ#15 FEDERAL TEST PROC.      1.27    20.6    732.4    2.13              11.5
         SEQ#15 50 MPH CRUISE           17.1    0.01           299.2
         SEQ#15 HIGHWAY FUEL ECON.      0.13     4.1    567.4    1.85              15.5
         SEQ#15 4 SPD IDLE (NEUT)       19.7    0.01            52.2
         SEQ#15 4 SPD IDLE (2500)       34.2    0.00           133.9
         SEQ#15 4 SPD IDLE (NEUT)       18.4    0.00            45.6
         SEQ#15 4 SPD IDLE (DRIV)        5.9    0.00           218.6
         SEQ#15 FED 2 MODE (30)         38.1    0.00           149.6
         SEQ#15 FED 2 MODE (NEUT)       47.4    0.00            50.8

         NO FOLLOW UP LANE TEST DONE

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                   AND FILTER, PURGE CANISTER FILTER, OIL AND OIL
                   FILTER, FUEL FILTER.  SET FAST IDLE TO
                   MANUFACTURER SPEC.  REPLACED FRESH AIR TUBE.

         SEQ#16 FEDERAL TEST PROC.      1.25    17.0    739.8    2.07              11.5
         SEQ#16 50 MPH CRUISE           14.8    0.00           278.0
         SEQ#16 HIGHWAY FUEL ECON.      0.13     2.4    557.0    1.94              15.8
         SEQ#16 4 SPD IDLE (NEUT)       21.3    0.00            43.5
         SEQ#16 4 SPD IDLE (2500)       46.4    0.00           139.6
         SEQ#16 4 SPD IDLE (NEUT)       19.0    0.00            40.9
         SEQ#16 4 SPD IDLE (DRIV)        5.3    0.00           167.8
         SEQ#16 FED 2 MODE (30)         41.1    0.00           133.7
         SEQ#16 FED 2 MODE (NEUT)       41.4    0.00            30.0

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   39  CO:  0.02   GAIN: 330


6412  76 AMC  258 I

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  178  CO:  6.00   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.      2.11    34.1    489.0    6.25              16.2
         SEQ#11 50 MPH CRUISE           19.0    0.09          1390.2
         SEQ#11 HIGHWAY FUEL ECON.      0.61     5.9    399.2    7.97              21.6
         SEQ#11 4 SPD IDLE (NEUT)       97.2    2.43            49.8
         SEQ#11 4 SPD IDLE (2500)       21.3    0.30           322.5
         SEQ#11 4 SPD IDLE (NEUT)       95.6    2.64            50.4
         SEQ#11 4 SPD IDLE (DRIV)      127.1    2.56            64.8
         SEQ#11 FED 2 MODE (30)         59.2    0.21          1297.6
         SEQ#11 FED 2 MODE (NEUT)       98.9    3.13            55.5

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  150  CO:  4.42   GAIN:   0


  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                     AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                                  EMISSION RESULTS                FUEL
VEH.                                    ---------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY       HC     CO      CO2     NOxc    CH4       MPG
----   -- ---- --- ----------------     -----  -----   ------   -----   ----      ----
6412   76 AMC  258 I    (CON'T)

          COMMENT : IDLE SPEED 650 RPM NEUTRAL, PROPANE GAIN 50 RPM.
                    ACHEIVED AT STEP 6 OF PROPANE CARB ADJ PROCEDURE
                    A-1, CORRECTED VACUUM LINES.

          SEQ#12 FEDERAL TEST PROC.     1.86   18.6    508.5     3.18              16.3
          SEQ#12 50 MPH CRUISE           8.5   0.09            578.3
          SEQ#12 HIGHWAY FUEL ECON.     0.57    4.6    424.3     3.82              20.5
          SEQ#12 4 SPD IDLE (NEUT)      32.2   0.06             53.3
          SEQ#12 4 SPD IDLE (2500)      11.8   0.23            184.5
          SEQ#12 4 SPD IDLE (NEUT)      65.5   0.06             49.7
          SEQ#12 4 SPD IDLE (DRIV)      63.8   0.05             69.5
          SEQ#12 FED 2 MODE (30)        52.6   0.16            618.7
          SEQ#12 FED 2 MODE (NEUT)      42.7   0.07             66.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 550 RPM, CO .14%, HC 125 PPM.

          SEQ#EDERAL TEIOC.    1.88    16.1    522.6    3.18        16.0
          SEQ#15 50 MPH CRUISE           6.9   0.08            564.1
          SEQ#15 HIGHWAY FUEL ECON.     0.62    5.3    422.2     3.94              20.5
          SEQ#15 4 SPD IDLE (NEUT)      39.8   0.07             53.6
          SEQ#15 4 SPD IDLE (2500)      22.0   0.69            168.0
          SEQ#15 4 SPD IDLE (NEUT)     139.0   0.07             25.1
          SEQ#15 4 SPD IDLE (DRIV)      96.2   0.05             33.0
          SEQ#15 FED 2 MODE (30)        66.8   0.46            563.1
          SEQ#15 FED 2 MODE (NEUT)      41.7   0.06             53.9

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE,
                    OIL AND OIL FILTER, FUEL FILTER.

          SEQ#16 FEDERAL TEST PROC.     1.95   12.7    511.9     2.42              16.5
          SEQ#16 50 MPH CRUISE          12.1   0.11            685.4
          SEQ#16 HIGHWAY FUEL ECON.     0.52    3.8    416.4     2.91              20.9
          SEQ#16 4 SPD IDLE (NEUT)      43.4   0.10             34.9
          SEQ#16 4 SPD IDLE (2500)      52.0   0.17            260.8
          SEQ#16 4 SPD IDLE (NEUT)      88.0   0.09             67.9
          SEQ#16 4 SPD IDLE (DRIV)     159.3   0.07             56.1
          SEQ#16 FED 2 MODE (30)        66.2   0.19            756.2
          SEQ#16 FED 2 MODE (NEUT)     170.0   0.10             45.5

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  194  CO:  0.12   GAIN: 200


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                                HOUSTON #2

                                                    EMISSION RESULTS              FUEL
                                          --------- GRAMS / MILE ----------       ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc   CH4     MPG
----  -- ---- --- ------------------     -----   -----   ------   -----  ----    ----
6413  76 PLYM 225 FD-225-1-5SS

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  709  CO:  9.99   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    4.84    64.4    514.7    6.37            14.1
          SEQ#11 50 MPH CRUISE         86.0    0.29          2514.5
          SEQ#11 HIGHWAY FUEL ECON.    1.53    15.3    412.5    7.27            20.1
          SEQ#11 4 SPD IDLE (NEUT)    633.7    7.58             44.4
          SEQ#11 4 SPD IDLE (2500)    106.8    0.10            800.7
          SEQ#11 4 SPD IDLE (NEUT)    615.6    7.98             45.0
          SEQ#11 4 SPD IDLE (DRIV)    777.7    7.90             49.5
          SEQ#11 FED 2 MODE (30)      227.8    0.18           2465.2
          SEQ#11 FED 2 MODE (NEUT)    663.1    7.33             48.0

          NO FOLLOW UP LANE TEST DONE


          COMMENT : PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.    2.88    21.7    515.7    6.31            15.9
          SEQ#12 50 MPH CRUISE         81.4    0.22          2372.2
          SEQ#12 HIGHWAY FUEL ECON.    1.05     9.4    426.4    7.35            20.0
          SEQ#12 4 SPD IDLE (NEUT)    488.4    0.03            128.8
          SEQ#12 4 SPD IDLE (2500)     58.2    0.09            748.1
          SEQ#12 4 SPD IDLE (NEUT)    197.0    0.00            129.0
          SEQ#12 4 SPD IDLE (DRIV)    298.5    0.01            469.1
          SEQ#12 FED 2 MODE (30)      150.0    0.32           1983.9
          SEQ#12 FED 2 MODE (NEUT)    153.0    0.00            146.0

          NO FOLLOW UP LANE TEST DONE


          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.    2.79    27.6    551.0    6.90            14.7
          SEQ#15 50 MPH CRUISE         80.7    0.17          2544.1
          SEQ#15 HIGHWAY FUEL ECON.    0.85     8.2    409.8    7.05            20.9
          SEQ#15 4 SPD IDLE (NEUT)    314.7    0.03            254.8
          SEQ#15 4 SPD IDLE (2500)    105.2    0.44            791.6
          SEQ#15 4 SPD IDLE (NEUT)    201.1    0.00            293.2
          SEQ#15 4 SPD IDLE (DRIV)    348.8    0.01            807.7
          SEQ#15 FED 2 MODE (30)      207.1    0.30           2189.3
          SEQ#15 FED 2 MODE (NEUT)    248.6    0.01            261.8

          NO FOLLOW UP LANE TEST DONE




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                  EMISSION RESULTS                    FUEL
VEH.                                     --------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4        MPG
----   -- ---- ---  ----------------    -----   -----   -----    -----   ---        ---
6413   76 PLYM 225  FD-225-1-5SS     (CON'T)

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                   PCV VALVE, CRANKCASE BREATHER FILTER, ENGINE OIL
                   & OIL FILTER.  ADJUSTED IDLE SPEED & MIXTURE.
                   EGR VALVE HAS LOW FLOW DUE TO RESTRICTION IN
                   EXHAUST PASSAGE.

         SEQ#16 FEDERAL TEST PROC.    1.80    11.7    485.5    5.87              17.4
         SEQ#16 50 MPH CRUISE        77.1     0.05           2563.8
         SEQ#16 HIGHWAY FUEL ECON.    0.60     4.3    409.6    6.86              21.2
         SEQ#16 4 SPD IDLE (NEUT)   210.1     0.01            135.5
         SEQ#16 4 SPD IDLE (2500)    52.3     0.05            708.7
         SEQ#16 4 SPD IDLE (NEUT)   166.7     0.00            143.2
         SEQ#16 4 SPD IDLE (DRIV)   226.5     0.01            544.9
         SEQ#16 FED 2 MODE (30)     127.7     0.07           2034.0
         SEQ#16 FED 2 MODE (NEUT)    89.6     0.00            133.9

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  291  CO:  0.24   GAIN:  41

6414  76 PLYM 225 FD-225-1-5SS

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  183  CO:  4.38   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.    1.94    32.3    462.1    5.58              17.1
         SEQ#11 50 MPH CRUISE        19.7     0.02            722.8
         SEQ#11 HIGHWAY FUEL ECON.    0.68    12.7    390.8    4.54              21.5
         SEQ#11 4 SPD IDLE (NEUT)   113.5     1.66             46.0
         SEQ#11 4 SPD IDLE (2500)    21.0     0.03            477.2
         SEQ#11 4 SPD IDLE (NEUT)   102.2     1.30             53.1
         SEQ#11 4 SPD IDLE (DRIV)   119.8     1.63            126.0
         SEQ#11 FED 2 MODE (30)      35.8     0.04           1568.1
         SEQ#11 FED 2 MODE (NEUT)   100.2     1.42             58.3

         NO FOLLOW UP LANE TEST DONE

         COMMENT : CORRECTED THERMOSTATIC AIR CLEANER DURING PRE-
                   ADJUSTMENT.50 RPM PROPANE GAIN ACHIEVED AT STEP 7
                   OF PROPANE ADJUSTMENT PROCEDURE A-1.IDLE RPM
                   WITHOUT PROPANE 750,WITH PROPANE 800 RPM.

         SEQ#12 FEDERAL TEST PROC.    1.10    18.9    476.8    4.96              17.4
         SEQ#12 50 MPH CRUISE        27.9     0.07           1270.0
         SEQ#12 HIGHWAY FUEL ECON.    0.56    10.7    358.1    3.77              23.6
         SEQ#12 4 SPD IDLE (NEUT)    31.2     0.01            120.1
         SEQ#12 4 SPD IDLE (2500)     7.9     0.02            859.3
         SEQ#12 4 SPD IDLE (NEUT)    13.5     0.00            129.8
         SEQ#12 4 SPD IDLE (DRIV)    46.4     0.01            505.5
         SEQ#12 FED 2 MODE (30)      42.7     0.04           2928.7
         SEQ#12 FED 2 MODE (NEUT)    17.7     0.01            134.7

         NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6414	76	PLYM	225	FD-225-1-5SS (CON'T)						

COMMENT : ADJUSTED IDLE NEUTRAL 770 RPM, CO .6%, HC 80 PPM. USED UNIVERSAL CO METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	1.27	18.1	464.4	4.90		17.9
SEQ#13 50 MPH CRUISE	26.9	0.05		1392.7		
SEQ#13 HIGHWAY FUEL ECON.	0.57	10.9	359.3	3.76		23.5
SEQ#13 4 SPD IDLE (NEUT)	74.1	0.54		120.6		
SEQ#13 4 SPD IDLE (2500)	15.1	0.02		871.4		
SEQ#13 4 SPD IDLE (NEUT)	32.2	0.01		133.1		
SEQ#13 4 SPD IDLE (DRIV)	72.4	0.02		555.0		
SEQ#13 FED 2 MODE (30)	53.3	0.05		3086.5		
SEQ#13 FED 2 MODE (NEUT)	38.8	0.03		147.3		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, CO .25%, HC 75 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.14	13.0	485.4	5.48		17.4
SEQ#15 50 MPH CRUISE	33.2	0.05		1237.4		
SEQ#15 HIGHWAY FUEL ECON.	0.57	11.1	377.2	4.21		22.4
SEQ#15 4 SPD IDLE (NEUT)	28.3	0.01		113.6		
SEQ#15 4 SPD IDLE (2500)	10.2	0.01		779.4		
SEQ#15 4 SPD IDLE (NEUT)	11.2	0.01		122.9		
SEQ#15 4 SPD IDLE (DRIV)	37.5	0.01		514.6		
SEQ#15 FED 2 MODE (30)	33.5	0.03		3155.5		
SEQ#15 FED 2 MODE (NEUT)	8.9	0.00		154.7		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR FILTER ELEMENT, FUEL FILTER, PCV VALVE, OIL & OIL FILTER, PURGE CANISTER FILTER. ADJUSTED PRIMARY VACUUM BREAK TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	0.92	13.5	477.1	5.54		17.7
SEQ#16 50 MPH CRUISE	21.3	0.03		1395.2		
SEQ#16 HIGHWAY FUEL ECON.	0.39	6.2	365.4	4.38		23.6
SEQ#16 4 SPD IDLE (NEUT)	16.7	0.01		125.2		
SEQ#16 4 SPD IDLE (2500)	3.9	0.01		709.7		
SEQ#16 4 SPD IDLE (NEUT)	16.1	0.01		122.9		
SEQ#16 4 SPD IDLE (DRIV)	42.7	0.02		557.0		
SEQ#16 FED 2 MODE (30)	39.1	0.04		3135.8		
SEQ#16 FED 2 MODE (NEUT)	10.8	0.01		125.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 89 CO: 0.40 GAIN: 101

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6415	76	PLYM	225	FD-225-1-5SS						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 294 CO: 4.32 GAIN: 0

SEQ#11 FEDERAL TEST PROC.	3.31	30.6	514.7	3.17		15.5
SEQ#11 50 MPH CRUISE	53.3	0.02		720.8		
SEQ#11 HIGHWAY FUEL ECON.	0.63	2.5	431.5	3.31		20.3
SEQ#11 4 SPD IDLE (NEUT)	266.5	3.50		72.5		
SEQ#11 4 SPD IDLE (2500)	57.6	0.02		204.0		
SEQ#11 4 SPD IDLE (NEUT)	265.1	3.42		72.7		
SEQ#11 4 SPD IDLE (DRIV)	340.2	3.73		116.0		
SEQ#11 FED 2 MODE (30)	87.6	0.02		727.9		
SEQ#11 FED 2 MODE (NEUT)	262.1	3.81		75.3		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 50 RPM.

SEQ#12 FEDERAL TEST PROC.	2.37	12.4	539.8	3.57		15.7
SEQ#12 50 MPH CRUISE	56.6	0.02		840.1		
SEQ#12 HIGHWAY FUEL ECON.	0.50	1.2	449.0	3.60		19.6
SEQ#12 4 SPD IDLE (NEUT)	98.6	0.03		85.1		
SEQ#12 4 SPD IDLE (2500)	48.0	0.02		181.6		
SEQ#12 4 SPD IDLE (NEUT)	77.7	0.00		87.4		
SEQ#12 4 SPD IDLE (DRIV)	163.7	0.01		271.9		
SEQ#12 FED 2 MODE (30)	77.4	0.02		751.5		
SEQ#12 FED 2 MODE (NEUT)	99.9	0.03		86.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, CO .5%, HC 270 PPM.

SEQ#13 FEDERAL TEST PROC.	2.27	9.3	519.7	3.42		16.4
SEQ#13 50 MPH CRUISE	43.7	0.01		874.2		
SEQ#13 HIGHWAY FUEL ECON.	0.46	1.0	437.0	3.62		20.2
SEQ#13 4 SPD IDLE (NEUT)	117.5	0.05		82.2		
SEQ#13 4 SPD IDLE (2500)	54.3	0.02		182.0		
SEQ#13 4 SPD IDLE (NEUT)	93.9	0.00		85.7		
SEQ#13 4 SPD IDLE (DRIV)	173.0	0.01		233.5		
SEQ#13 FED 2 MODE (30)	84.3	0.03		662.2		
SEQ#13 FED 2 MODE (NEUT)	152.0	0.03		86.7		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                 FUEL
VEH.                                   --------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2     NOxc    CH4        MPG
----   -- ---- --- ----------------   -----   -----   ------   -----   ----       ----
6415   76 PLYM 225 FD-225-1-5SS     (CON'T)

            COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

            SEQ#15 FEDERAL TEST PROC.    1.60    7.0    519.6    3.54               16.6
            SEQ#15 50 MPH CRUISE        50.6    0.01            857.3
            SEQ#15 HIGHWAY FUEL ECON.    0.43    0.9    439.3    3.59               20.1
            SEQ#15 4 SPD IDLE (NEUT)   190.7    0.01             78.1
            SEQ#15 4 SPD IDLE (2500)    82.0    0.02            169.8
            SEQ#15 4 SPD IDLE (NEUT)   107.5    0.00             85.7
            SEQ#15 4 SPD IDLE (DRIV)   154.0    0.00            229.3
            SEQ#15 FED 2 MODE (30)      75.7    0.01            763.3
            SEQ#15 FED 2 MODE (NEUT)   111.5    0.01             97.5

            NO FOLLOW UP LANE TEST DONE

            COMMENT : MAJOR TUNE-UP.  REPLACED FUEL FILTER, PCV VALVE,
                      CARBON CANISTER FILTER, ENGINE OIL & FILTER,
                      SPARK PLUGS & AIR FILTER.  ADJUSTED IDLE SPEED &
                      MIXTURE TO SPEC.

            SEQ#16 FEDERAL TEST PROC.    2.33    9.7    524.1    3.66               16.2
            SEQ#16 50 MPH CRUISE        41.1    0.02            881.5
            SEQ#16 HIGHWAY FUEL ECON.    0.50    1.9    446.0    3.62               19.7
            SEQ#16 4 SPD IDLE (NEUT)   163.7    0.06             78.0
            SEQ#16 4 SPD IDLE (2500)    70.1    0.01            188.3
            SEQ#16 4 SPD IDLE (NEUT)   114.1    0.00             82.5
            SEQ#16 4 SPD IDLE (DRIV)   196.4    0.00            209.6
            SEQ#16 FED 2 MODE (30)      78.7    0.00            864.3
            SEQ#16 FED 2 MODE (NEUT)   142.0    0.01             82.1

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:  192   CO:  0.35    GAIN:  45

6416   76 DODG 318 FD-318-2-5SS

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:  303   CO:  3.91    GAIN:  0

            SEQ#11 FEDERAL TEST PROC.    3.32   61.5    547.2    5.43               13.6
            SEQ#11 50 MPH CRUISE        29.2    0.02           1042.1
            SEQ#11 HIGHWAY FUEL ECON.    0.59    3.6    452.9    6.76               19.3
            SEQ#11 4 SPD IDLE (NEUT)   240.3    2.72             29.9
            SEQ#11 4 SPD IDLE (2500)    30.2    0.05            205.7
            SEQ#11 4 SPD IDLE (NEUT)   255.0    2.86             31.9
            SEQ#11 4 SPD IDLE (DRIV)   202.4    3.12             38.4
            SEQ#11 FED 2 MODE (30)      93.3    0.69            657.1
            SEQ#11 FED 2 MODE (NEUT)   225.8    2.92             30.6

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY						
6416	76	DODG	318	FD-318-2-5SS (CON'T)						

COMMENT : PROPANE GAIN 50 RPM ACHIEVED AT STEP 7C, NO MAINTENANCE PERFORMED.

	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	2.47	28.0	585.7	6.02		13.9
SEQ#12 50 MPH CRUISE	25.6	0.02		2149.2		
SEQ#12 HIGHWAY FUEL ECON.	0.51	2.4	464.5	7.30		18.9
SEQ#12 4 SPD IDLE (NEUT)	169.3	0.05		61.0		
SEQ#12 4 SPD IDLE (2500)	9.2	0.02		350.8		
SEQ#12 4 SPD IDLE (NEUT)	114.5	0.05		61.5		
SEQ#12 4 SPD IDLE (DRIV)	89.3	0.05		99.0		
SEQ#12 FED 2 MODE (30)	101.2	0.34		1615.7		
SEQ#12 FED 2 MODE (NEUT)	181.7	0.30		69.3		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, CO .5%, HC 350 PPM. USED UNIVERSAL CO METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	2.48	33.9	587.2	6.05		13.7
SEQ#13 50 MPH CRUISE	33.8	0.05		2066.6		
SEQ#13 HIGHWAY FUEL ECON.	0.50	2.7	453.4	7.12		19.3
SEQ#13 4 SPD IDLE (NEUT)	154.7	0.08		62.7		
SEQ#13 4 SPD IDLE (2500)	12.1	0.02		345.7		
SEQ#13 4 SPD IDLE (NEUT)	102.9	0.06		61.6		
SEQ#13 4 SPD IDLE (DRIV)	76.7	0.04		99.0		
SEQ#13 FED 2 MODE (30)	108.2	0.56		1442.8		
SEQ#13 FED 2 MODE (NEUT)	181.0	0.33		67.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, CO .4%.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	2.29	27.3	595.0	5.96		13.8
SEQ#15 50 MPH CRUISE	28.6	0.02		2204.3		
SEQ#15 HIGHWAY FUEL ECON.	0.43	2.2	457.1	6.94		19.2
SEQ#15 4 SPD IDLE (NEUT)	212.8	0.04		68.6		
SEQ#15 4 SPD IDLE (2500)	8.9	0.02		323.5		
SEQ#15 4 SPD IDLE (NEUT)	72.4	0.02		77.4		
SEQ#15 4 SPD IDLE (DRIV)	49.0	0.02		118.5		
SEQ#15 FED 2 MODE (30)	78.7	0.22		1655.8		
SEQ#15 FED 2 MODE (NEUT)	144.7	0.05		76.0		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                      AUTOMOTIVE TESTING LABORATORIES,INC.

                            TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2

                                                    EMISSION RESULTS            FUEL
VEH.                                       --------- GRAMS / MILE ----------    ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO     CO2    NOxc   CH4       MPG
----   -- ---- --- ----------------- -----   -----  ------   -----  ----      ----
6416   76 DODG 318 FD-318-2-5SS     (CON'T)

         COMMENT : MAJOR TUNE--UP.REPLACED SPARK PLUGS,AIR FILTER,
                   OIL FILTER,PCV VALVE,CANISTER & FUEL FILTERS,HOT
                   AIR INLET TUBE.ADJUSTED IDLE SPEED & MIXTURE TO
                   SPEC.

         SEQ#16 FEDERAL TEST PROC.   1.16     6.0   601.1    6.74              14.4
         SEQ#16 50 MPH CRUISE        31.9    0.04          2209.3
         SEQ#16 HIGHWAY FUEL ECON.   0.34     1.0   460.8    7.46              19.2
         SEQ#16 4 SPD IDLE (NEUT)   442.2    0.00            83.2
         SEQ#16 4 SPD IDLE (2500)    22.3    0.01           336.6
         SEQ#16 4 SPD IDLE (NEUT)   242.3    0.00            84.8
         SEQ#16 4 SPD IDLE (DRIV)   102.9    0.00           160.3
         SEQ#16 FED 2 MODE (30)      48.7    0.01          1345.1
         SEQ#16 FED 2 MODE (NEUT)   304.5    0.01            83.7

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  253  CO:  0.00   GAIN: 269


6417   76 CHRY 360 FD-360-2-5S

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: F
         HC:  117  CO:  1.52   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.   3.15    35.5   707.3    4.90              11.5
         SEQ#11 50 MPH CRUISE        55.3    0.12          1753.4
         SEQ#11 HIGHWAY FUEL ECON.   1.77    13.3   451.0    7.94              18.6
         SEQ#11 4 SPD IDLE (NEUT)    41.7    0.78            55.2
         SEQ#11 4 SPD IDLE (2500)   123.4    0.13           379.1
         SEQ#11 4 SPD IDLE (NEUT)    50.0    0.71            51.3
         SEQ#11 4 SPD IDLE (DRIV)    70.1    0.49            61.0
         SEQ#11 FED 2 MODE (30)      77.7    0.09           762.2
         SEQ#11 FED 2 MODE (NEUT)    46.0    0.60            49.9

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE NEUTRAL 700 RPM, CO .32%, HC 150
                   PPM.

         SEQ#15 FEDERAL TEST PROC.   3.35    26.3   702.7    3.37              11.8
         SEQ#15 50 MPH CRUISE        71.4    0.22          2317.3
         SEQ#15 HIGHWAY FUEL ECON.   1.81    17.0   451.9    5.89              18.3
         SEQ#15 4 SPD IDLE (NEUT)    62.9    0.53            61.7
         SEQ#15 4 SPD IDLE (2500)   202.4    0.18           537.8
         SEQ#15 4 SPD IDLE (NEUT)    65.5    0.45            64.1
         SEQ#15 4 SPD IDLE (DRIV)    84.0    0.27            84.0
         SEQ#15 FED 2 MODE (30)      95.9    0.12           969.4
         SEQ#15 FED 2 MODE (NEUT)    77.1    0.43            64.9

         NO FOLLOW UP LANE TEST DONE



   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                           EMISSION RESULTS                 FUEL
VEH.                                             --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC       CO      CO2      NOxc     CH4     MPG
----   -- ---- ---  ----------------       -----    -----   ------    -----    ----    ----
6417   76 CHRY 360 FD-360-2-5S    (CON'T)

            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, OIL
                      AND CHARCOAL CANISTER FILTERS, PCV VALVE AND
                      ENGINE OIL.  ADJUSTED TIMING, IDLE SPEED AND
                      MIXTURE.  REPLACED HOT AND COLD AIR DUCTS,
                      RECONNECTED EGR LINE.

            SEQ#16 FEDERAL TEST PROC.   3.89    21.5    710.5     3.40             11.7
            SEQ#16 50 MPH CRUISE       61.5     0.18             902.8
            SEQ#16 HIGHWAY FUEL ECON.   1.84    13.2    458.7     6.33             18.3
            SEQ#16 4 SPD IDLE (NEUT)  165.3     0.26              55.2
            SEQ#16 4 SPD IDLE (2500)  669.0     0.20             552.0
            SEQ#16 4 SPD IDLE (NEUT)  167.7     0.20              58.7
            SEQ#16 4 SPD IDLE (DRIV)   93.6     0.13              69.6
            SEQ#16 FED 2 MODE (30)    101.9     0.13             842.1
            SEQ#16 FED 2 MODE (NEUT)  328.6     0.17              50.7

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:   110  CO:   0.83    GAIN: 190

            COMMENT : REPLACED CATALYTIC CONVERTER.

            SEQ#17 FEDERAL TEST PROC.   1.35    15.8    718.8     2.24             11.9
            SEQ#17 50 MPH CRUISE       18.1     0.02            1966.4
            SEQ#17 HIGHWAY FUEL ECON.   0.59     8.3    446.1     4.24             19.3
            SEQ#17 4 SPD IDLE (NEUT)   13.8     0.04              57.3
            SEQ#17 4 SPD IDLE (2500)  300.0     0.02             445.8
            SEQ#17 4 SPD IDLE (NEUT)   24.3     0.03              60.0
            SEQ#17 4 SPD IDLE (DRIV)   20.0     0.01              72.3
            SEQ#17 FED 2 MODE (30)     38.1     0.02             781.4
            SEQ#17 FED 2 MODE (NEUT)   39.8     0.03              59.5

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    32  CO:   0.05    GAIN: 100

6418   76 CHRY 400 FE-400-4-EM

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:   170  CO:   6.12    GAIN:   0

            SEQ#11 FEDERAL TEST PROC.   4.73    86.2    700.0     2.65             10.4
            SEQ#11 50 MPH CRUISE        3.3     0.07             390.2
            SEQ#11 HIGHWAY FUEL ECON.   0.81     8.8    521.9     4.91             16.5
            SEQ#11 4 SPD IDLE (NEUT)  214.4     6.50              44.3
            SEQ#11 4 SPD IDLE (2500)   10.2     0.03             146.2
            SEQ#11 4 SPD IDLE (NEUT)  192.4     6.50              45.4
            SEQ#11 4 SPD IDLE (DRIV)  273.9     7.04              42.6
            SEQ#11 FED 2 MODE (30)     15.1     0.12             188.3
            SEQ#11 FED 2 MODE (NEUT)  210.4     6.83              43.0

            NO FOLLOW UP LANE TEST DONE


      [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
```

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE					FUEL ECON MPG
					HC	CO	CO_2	NO_{xc}	CH_4	
6418	76	CHRY	400	FE-400-4-EM (CON'T)						
				COMMENT : PROPANE GAIN 50 RPM, IDLE RPM WITHOUT PROPANE 690, WITH PROPANE 770 RPM.						
				SEQ#12 FEDERAL TEST PROC.	1.95	31.4	805.7	2.34		10.3
				SEQ#12 50 MPH CRUISE	0.0	0.06		343.7		
				SEQ#12 HIGHWAY FUEL ECON.	0.47	5.1	508.8	4.91		17.1
				SEQ#12 4 SPD IDLE (NEUT)	74.1	1.34		53.9		
				SEQ#12 4 SPD IDLE (2500)	3.0	0.03		143.7		
				SEQ#12 4 SPD IDLE (NEUT)	64.2	1.26		56.2		
				SEQ#12 4 SPD IDLE (DRIV)	121.1	1.67		73.8		
				SEQ#12 FED 2 MODE (30)	7.9	0.10		152.1		
				SEQ#12 FED 2 MODE (NEUT)	62.9	1.26		55.6		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : CO 1.7% ON HOOK-UP.						
				SEQ#13 FEDERAL TEST PROC.	2.32	23.6	809.8	3.12		10.4
				SEQ#13 50 MPH CRUISE	6.9	0.05		341.7		
				SEQ#13 HIGHWAY FUEL ECON.	0.52	4.8	553.1	5.64		15.8
				SEQ#13 4 SPD IDLE (NEUT)	96.2	0.59		53.2		
				SEQ#13 4 SPD IDLE (2500)	1.0	0.02		150.6		
				SEQ#13 4 SPD IDLE (NEUT)	90.3	0.58		54.1		
				SEQ#13 4 SPD IDLE (DRIV)	109.8	0.66		74.3		
				SEQ#13 FED 2 MODE (30)	9.8	0.09		172.9		
				SEQ#13 FED 2 MODE (NEUT)	84.3	0.58		53.3		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.						
				SEQ#15 FEDERAL TEST PROC.	1.86	20.3	847.0	2.93		10.0
				SEQ#15 50 MPH CRUISE	9.2	0.07		373.0		
				SEQ#15 HIGHWAY FUEL ECON.	0.47	4.8	548.5	5.48		15.9
				SEQ#15 4 SPD IDLE (NEUT)	48.7	0.23		63.6		
				SEQ#15 4 SPD IDLE (2500)	2.0	0.02		164.4		
				SEQ#15 4 SPD IDLE (NEUT)	42.4	0.19		67.2		
				SEQ#15 4 SPD IDLE (DRIV)	74.4	0.18		100.8		
				SEQ#15 FED 2 MODE (30)	11.5	0.09		192.4		
				SEQ#15 FED 2 MODE (NEUT)	41.4	0.21		65.9		
				NO FOLLOW UP LANE TEST DONE						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                  AUTOMOTIVE TESTING LABORATORIES,INC.

                        TEXAS PILOT I/M STUDY


                      LISTING OF TEST RESULTS
                             HOUSTON #2
                                                    EMISSION RESULTS                FUEL
                                       --------- GRAMS / MILE ----------------      ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO      CO2     NOxc    CH4       MPG
----  -- ---- --- ----------------    -----   -----   ------   -----   ----      ----
6418  76 CHRY 400 FE-400-4-EM    (CON'T)

        COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                  FUEL FILTER, PCV VALVE, CARBON CANISTER FILTER,
                  ENGINE OIL & FILTER, HEATED AIR TUBE.  ADJUSTED
                  PRIMARY VACUUM BREAK, IDLE SPEED & MIXTURE TO SPEC.

        SEQ#16 FEDERAL TEST PROC.    1.59    14.7    818.5    2.34              10.5
        SEQ#16 50 MPH CRUISE          2.0    0.05            383.1
        SEQ#16 HIGHWAY FUEL ECON.    0.51     3.8    522.2    5.89              16.8
        SEQ#16 4 SPD IDLE (NEUT)     38.1    0.14             53.3
        SEQ#16 4 SPD IDLE (2500)      0.0    0.02            177.5
        SEQ#16 4 SPD IDLE (NEUT)     21.7    0.13             55.3
        SEQ#16 4 SPD IDLE (DRIV)     39.1    0.14             85.3
        SEQ#16 FED 2 MODE (30)        8.5    0.10            193.2
        SEQ#16 FED 2 MODE (NEUT)     27.3    0.14             50.2

        FOLLOW UP LANE TEST:
        CAT: P    FUEL: P
        HC:   41  CO:  0.12   GAIN: 250


6420  76 CHRY 400 FD-400-2-5S

        PRELIMINARY LANE TEST:
        CAT: F    FUEL: P
        HC:   98  CO:  4.69   GAIN:   0

        SEQ#11 FEDERAL TEST PROC.    2.16    60.4    790.2    3.13              10.0
        SEQ#11 50 MPH CRUISE         11.2    0.17            595.4
        SEQ#11 HIGHWAY FUEL ECON.    0.58    15.5    575.2    3.61              14.8
        SEQ#11 4 SPD IDLE (NEUT)    115.8    4.33             55.2
        SEQ#11 4 SPD IDLE (2500)      8.5    0.15            201.4
        SEQ#11 4 SPD IDLE (NEUT)     96.2    3.77             58.2
        SEQ#11 4 SPD IDLE (DRIV)    123.8    3.56             67.3
        SEQ#11 FED 2 MODE (30)        8.2    0.07            319.5
        SEQ#11 FED 2 MODE (NEUT)     93.6    3.71             58.3

        NO FOLLOW UP LANE TEST DONE


        COMMENT : CORRECTED VACUUM HOSE ROUTINGS, REPLACED VACUUM
                  ADVANCE DIAPHRAGM.  PROPANE GAIN 50 RPM.

        SEQ#12 FEDERAL TEST PROC.    1.84    24.3    783.0    2.75              10.7
        SEQ#12 50 MPH CRUISE         20.4    0.18           1327.6
        SEQ#12 HIGHWAY FUEL ECON.    0.89    10.3    533.0    4.58              16.1
        SEQ#12 4 SPD IDLE (NEUT)     99.6    0.58             47.6
        SEQ#12 4 SPD IDLE (2500)     75.1    0.18            294.2
        SEQ#12 4 SPD IDLE (NEUT)    107.5    0.45             49.7
        SEQ#12 4 SPD IDLE (DRIV)    140.4    0.46             63.6
        SEQ#12 FED 2 MODE (30)       43.1    0.17            697.5
        SEQ#12 FED 2 MODE (NEUT)    110.2    1.59             47.8

        NO FOLLOW UP LANE TEST DONE




   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                                LISTING OF TEST RESULTS
                                      HOUSTON #2

                                                  EMISSION RESULTS                 FUEL
VEH.                                 --------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID     ENGINE FAMILY      HC      CO      CO2    NOxc     CH4      MPG
----   -- ---- --- ----------------   -----   -----   ------   -----    ----      ----
6420   76 CHRY 400 FD-400-2-5S     (CON'T)

         COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

         SEQ#15 FEDERAL TEST PROC.    1.91    23.0    786.7    2.63               10.7
         SEQ#15 50 MPH CRUISE         7.2     0.14           1159.8
         SEQ#15 HIGHWAY FUEL ECON.    0.72     7.2    512.2    4.36               16.9
         SEQ#15 4 SPD IDLE (NEUT)    91.9     0.16             42.8
         SEQ#15 4 SPD IDLE (2500)   135.4     0.09            273.0
         SEQ#15 4 SPD IDLE (NEUT)   166.3     0.13             39.8
         SEQ#15 4 SPD IDLE (DRIV)   111.5     0.13             55.2
         SEQ#15 FED 2 MODE (30)      27.3     0.12            638.9
         SEQ#15 FED 2 MODE (NEUT)   117.5     0.15             34.6

         NO FOLLOW UP LANE TEST DONE

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                   PCV VALVE, CARBON CANISTER FILTER, ENGINE OIL &
                   FILTER.  ADJUSTED FAST IDLE SPEED & MIXTURE TO
                   SPEC.

         SEQ#16 FEDERAL TEST PROC.    1.65    16.1    798.1    2.92               10.7
         SEQ#16 50 MPH CRUISE        31.5     0.14           1167.3
         SEQ#16 HIGHWAY FUEL ECON.    0.52     5.5    441.4    4.14               19.6
         SEQ#16 4 SPD IDLE (NEUT)   187.7     0.13             38.1
         SEQ#16 4 SPD IDLE (2500)    25.6     0.06            271.9
         SEQ#16 4 SPD IDLE (NEUT)   208.8     0.12             39.4
         SEQ#16 4 SPD IDLE (DRIV)    71.4     0.13             55.5
         SEQ#16 FED 2 MODE (30)      26.9     0.11            600.5
         SEQ#16 FED 2 MODE (NEUT)   181.0     0.14             36.8

         NO FOLLOW UP LANE TEST DONE

         COMMENT : INSTALLED CATALYST.

         SEQ#17 FEDERAL TEST PROC.    0.50    11.6    819.0    2.42               10.6
         SEQ#17 50 MPH CRUISE        31.9     0.00           1262.5
         SEQ#17 HIGHWAY FUEL ECON.    0.05     1.7    553.1    3.80               16.0
         SEQ#17 4 SPD IDLE (NEUT)    14.1     0.00             59.7
         SEQ#17 4 SPD IDLE (2500)     3.6     0.00            323.5
         SEQ#17 4 SPD IDLE (NEUT)     7.5     0.00             53.9
         SEQ#17 4 SPD IDLE (DRIV)     0.0     0.00             67.7
         SEQ#17 FED 2 MODE (30)       0.0     0.00            571.2
         SEQ#17 FED 2 MODE (NEUT)     0.0     0.00             51.7

         FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
         HC:    1   CO:  0.03    GAIN: 134




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                FUEL
VEH.                                          ---------- GRAMS / MILE -----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2    NOxc    CH4       MPG
----   -- ---- ---  -----------------       -----   -----   ------  -----   ----      ----
6421   76 FORD 140 2.3(1CEF)

              PRELIMINARY LANE TEST:
              CAT: P     FUEL: P
              HC:    99  CO:   0.14   GAIN:    0

              SEQ#11 FEDERAL TEST PROC.     2.40    33.1    384.9    1.57             20.0
              SEQ#11 50 MPH CRUISE         49.3     0.67            951.9
              SEQ#11 HIGHWAY FUEL ECON.     0.54    10.6    285.1    2.65             29.3
              SEQ#11 4 SPD IDLE (NEUT)    142.0     0.80             50.2
              SEQ#11 4 SPD IDLE (2500)     26.9     0.42            106.0
              SEQ#11 4 SPD IDLE (NEUT)    125.8     0.29             28.1
              SEQ#11 FED 2 MODE (30)       78.0     0.82            661.3
              SEQ#11 FED 2 MODE (NEUT)    124.8     0.33             48.9

              NO FOLLOW UP LANE TEST DONE

              COMMENT : PCV LINE OBSTRUCTED BUT REMOVED AT STEP 9B OF
                        PROPANE ADJUSTMENTPROCEDURE.  PROPANE GAIN OF 50
                        RPM WAS ACHIEVED AT STEP 6C OF PROPANE ADJUSTMENT
                        PROCEDURE.

              SEQ#12 FEDERAL TEST PROC.     1.86    19.1    377.5    2.74             21.5
              SEQ#12 50 MPH CRUISE         53.3     0.32           1227.4
              SEQ#12 HIGHWAY FUEL ECON.     0.62     5.2    284.3    4.08             30.1
              SEQ#12 4 SPD IDLE (NEUT)    149.4     0.07             46.3
              SEQ#12 4 SPD IDLE (2500)     20.4     0.23            140.1
              SEQ#12 4 SPD IDLE (NEUT)    102.2     0.04             62.9
              SEQ#12 FED 2 MODE (30)       76.4     0.50            882.5
              SEQ#12 FED 2 MODE (NEUT)     76.4     0.04             59.7

              NO FOLLOW UP LANE TEST DONE

              COMMENT : ADJUSTED IDLE NEUTRAL 850 RPM, PROPANE GAIN 40
                        RPM.

              SEQ#15 FEDERAL TEST PROC.     1.61    20.8    387.2    2.54             20.9
              SEQ#15 50 MPH CRUISE         46.0     0.32           1162.3
              SEQ#15 HIGHWAY FUEL ECON.     0.50     5.8    287.8    3.97             29.7
              SEQ#15 4 SPD IDLE (NEUT)     66.8     0.09             56.5
              SEQ#15 4 SPD IDLE (2500)     12.5     0.18            146.7
              SEQ#15 4 SPD IDLE (NEUT)     33.8     0.06             41.6
              SEQ#15 FED 2 MODE (30)       63.5     0.46            909.3
              SEQ#15 FED 2 MODE (NEUT)     32.5     0.06             53.9

              FOLLOW UP LANE TEST:
              CAT: P     FUEL: P
              HC:    72  CO:   0.18   GAIN:   10
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                  EMISSION RESULTS                 FUEL
VEH.                                     ---------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY       HC     CO     CO2    NOxc    CH4        MPG
----   -- ---- --- -----------------    -----  -----  ------  -----   ----       ----
6421   76 FORD 140 2.3(1CEF)     (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                     AND FILTER, OIL AND OIL FILTER, AIR FILTER, FUEL
                     FILTER, ADJUSTED PRIMARY VACUUM BREAK TO SPEC.

           SEQ#16 FEDERAL TEST PROC.    1.86   21.0   382.6   2.44                21.1
           SEQ#16 50 MPH CRUISE         50.0   0.32         1152.3
           SEQ#16 HIGHWAY FUEL ECON.    0.51    5.5   288.7   4.04                29.7
           SEQ#16 4 SPD IDLE (NEUT)     47.4   0.11           31.8
           SEQ#16 4 SPD IDLE (2500)     12.1   0.17          121.6
           SEQ#16 4 SPD IDLE (NEUT)     49.7   0.08           35.7
           SEQ#16 FED 2 MODE (30)       66.8   0.51          851.7
           SEQ#16 FED 2 MODE (NEUT)     53.3   0.06           45.9

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    40  CO:   0.10   GAIN:   20

6422   76 FORD 140 2.3(1CEF)

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:    17  CO:   0.04   GAIN:    0

           SEQ#11 FEDERAL TEST PROC.    1.36   11.3   488.2   3.99                17.4
           SEQ#11 50 MPH CRUISE         46.0   0.15         1673.3
           SEQ#11 HIGHWAY FUEL ECON.    0.66    3.3   366.8   6.59                23.7
           SEQ#11 4 SPD IDLE (NEUT)     23.6   0.03           39.9
           SEQ#11 4 SPD IDLE (2500)     26.6   0.14          129.6
           SEQ#11 4 SPD IDLE (NEUT)     21.0   0.03           40.4
           SEQ#11 4 SPD IDLE (DRIV)     53.9   0.05           43.8
           SEQ#11 FED 2 MODE (30)      109.2   0.21         1402.8
           SEQ#11 FED 2 MODE (NEUT)     26.6   0.04           51.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 750 RPM, PROPANE GAIN 50 RPM,
                     USED UNIVERSAL PROPANE METHOD.

           SEQ#12 FEDERAL TEST PROC.    1.33   10.6   479.4   4.34                17.7
           SEQ#12 50 MPH CRUISE         55.9   0.15         1535.5
           SEQ#12 HIGHWAY FUEL ECON.    0.64    3.4   367.2   6.86                23.7
           SEQ#12 4 SPD IDLE (NEUT)     34.5   0.01           48.8
           SEQ#12 4 SPD IDLE (2500)     25.0   0.15          143.2
           SEQ#12 4 SPD IDLE (NEUT)     24.6   0.01           50.0
           SEQ#12 4 SPD IDLE (DRIV)     49.0   0.01           98.8
           SEQ#12 FED 2 MODE (30)      105.2   0.28         1087.1
           SEQ#12 FED 2 MODE (NEUT)     28.6   0.02           55.7

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                   FUEL
VEH.                                        --------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY            HC       CO      CO2     NOxc    CH4      MPG
----  -- ---- --- -----------------         -----    -----   ------   -----   ----     ----
6422  76 FORD 140 2.3(1CEF)     (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 750 RPM, PROPANE GAIN 10 RPM.

          SEQ#15 FEDERAL TEST PROC.    1.37      9.0    465.9    4.57             18.3
          SEQ#15 50 MPH CRUISE         55.6     0.08           1773.5
          SEQ#15 HIGHWAY FUEL ECON.    0.66      2.4    366.3    7.26             23.8
          SEQ#15 4 SPD IDLE (NEUT)     38.5     0.01             49.5
          SEQ#15 4 SPD IDLE (2500)     27.3     0.14            162.1
          SEQ#15 4 SPD IDLE (NEUT)     28.9     0.01             47.7
          SEQ#15 4 SPD IDLE (DRIV)     51.3     0.01             92.4
          SEQ#15 FED 2 MODE (30)      102.2     0.22           1237.4
          SEQ#15 FED 2 MODE (NEUT)     35.5     0.02             53.8

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                    AND FILTER, FUEL FILTER, OIL & OIL FILTER, AIR
                    FILTER ELEMENT, SET TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    1.46     11.0    495.5    4.64             17.2
          SEQ#16 50 MPH CRUISE         53.9     0.09           1690.8
          SEQ#16 HIGHWAY FUEL ECON.    0.69      3.2    368.9    7.43             23.6
          SEQ#16 4 SPD IDLE (NEUT)     40.8     0.01             50.0
          SEQ#16 4 SPD IDLE (2500)     27.3     0.13            197.8
          SEQ#16 4 SPD IDLE (NEUT)     30.6     0.01             53.8
          SEQ#16 4 SPD IDLE (DRIV)     59.9     0.01            128.3
          SEQ#16 FED 2 MODE (30)       99.9     0.20           1357.7
          SEQ#16 FED 2 MODE (NEUT)     30.2     0.02             55.6

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   23  CO:  0.02   GAIN: 118

6426  76 FORD 302 302"A"(1CEF)

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  309  CO:  3.74   GAIN:  10

          SEQ#11 FEDERAL TEST PROC.    4.88    106.4    480.1    1.33             13.4
          SEQ#11 50 MPH CRUISE        226.2     5.46            201.6
          SEQ#11 HIGHWAY FUEL ECON.    3.38    121.1    359.2    0.66             15.8
          SEQ#11 4 SPD IDLE (NEUT)    330.8     1.72             72.3
          SEQ#11 4 SPD IDLE (2500)    160.0     3.14            154.7
          SEQ#11 4 SPD IDLE (NEUT)    352.8     2.49             79.9
          SEQ#11 4 SPD IDLE (DRIV)    374.9     3.14            158.3
          SEQ#11 FED 2 MODE (30)      218.5     1.90            570.2
          SEQ#11 FED 2 MODE (NEUT)    359.5     2.37             68.3

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2

                                               EMISSION RESULTS                FUEL
VEH.                                  --------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2    NOxc    CH4    MPG
----   -- ---- --- ----------------- -----   -----   ------   -----   ----   ----
6426   76 FORD 302 302"A"(1CEF)      (CON'T)

            COMMENT : IDLE DRIVE 650 RPM, IDLE CO .25%.

            SEQ#13 FEDERAL TEST PROC.   3.32    67.6    542.1    2.09           13.5
            SEQ#13 50 MPH CRUISE      214.4     5.30            207.8
            SEQ#13 HIGHWAY FUEL ECON.   3.01   110.0    345.7    0.71           16.8
            SEQ#13 4 SPD IDLE (NEUT)  443.7     0.02            180.1
            SEQ#13 4 SPD IDLE (2500)  142.0     1.93            155.0
            SEQ#13 4 SPD IDLE (NEUT)  339.6     0.01            217.3
            SEQ#13 4 SPD IDLE (DRIV)  146.0     0.01            758.2
            SEQ#13 FED 2 MODE (30)    171.7     0.94            684.4
            SEQ#13 FED 2 MODE (NEUT)  381.6     0.02            191.6

            NO FOLLOW UP LANE TEST DONE


            COMMENT : ADJUSTED IDLE SPEED AND MIXTURE.

            SEQ#15 FEDERAL TEST PROC.   3.36    70.5    539.2    2.06           13.4
            SEQ#15 50 MPH CRUISE      216.1     5.42            242.6
            SEQ#15 HIGHWAY FUEL ECON.   3.19   113.9    366.4    0.74           16.0
            SEQ#15 4 SPD IDLE (NEUT)  753.6     0.02            131.9
            SEQ#15 4 SPD IDLE (2500)  173.7     1.66            168.8
            SEQ#15 4 SPD IDLE (NEUT)  576.0     0.01            165.0
            SEQ#15 4 SPD IDLE (DRIV)  181.7     0.01            452.9
            SEQ#15 FED 2 MODE (30)    177.7     0.86            661.1
            SEQ#15 FED 2 MODE (NEUT)  479.4     0.02            156.5

            NO FOLLOW UP LANE TEST DONE


            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                      CRANKCASE BREATHER FILTERS, ENGINE OIL, PCV VALVE,
                       AIR PUMP AND BELT.  COLD AIR DUCT RECONNECTED.

            SEQ#16 FEDERAL TEST PROC.   2.09    17.2    590.4    2.85           14.2
            SEQ#16 50 MPH CRUISE       57.6     0.19            619.7
            SEQ#16 HIGHWAY FUEL ECON.   1.01    20.1    489.5    1.82           16.9
            SEQ#16 4 SPD IDLE (NEUT)  723.8     0.02             95.9
            SEQ#16 4 SPD IDLE (2500)   37.1     0.04            246.0
            SEQ#16 4 SPD IDLE (NEUT)  609.9     0.02             85.2
            SEQ#16 4 SPD IDLE (DRIV)  271.6     0.01            254.8
            SEQ#16 FED 2 MODE (30)     91.9     0.03            846.1
            SEQ#16 FED 2 MODE (NEUT)  434.8     0.02            132.9

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            rO:  2.21   GAIN:  40





[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                       EMISSION RESULTS                      FUEL
VEH.                                           --------- GRAMS / MILE -----------            ECON
 NO.   YR MAKE CID     ENGINE FAMILY            HC      CO      CO2     NOxc     CH4          MPG
----   -- ---- ---  -----------------          -----   -----   ------   -----    ----         ----
6427   76 FORD 302  302"A"(1CEF)

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:    29  CO:  0.09   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.     2.04    17.3    687.7    1.65                   12.3
           SEQ#11 50 MPH CRUISE         54.6     0.04           521.6
           SEQ#11 HIGHWAY FUEL ECON.     0.68     1.7    466.3    2.03                   18.8
           SEQ#11 4 SPD IDLE (NEUT)    156.0     3.48            68.9
           SEQ#11 4 SPD IDLE (2500)     28.3     0.03           149.6
           SEQ#11 4 SPD IDLE (NEUT)     14.4     0.02            57.8
           SEQ#11 4 SPD IDLE (DRIV)    157.7     2.07            73.8
           SEQ#11 FED 2 MODE (30)       68.5     0.02           280.0
           SEQ#11 FED 2 MODE (NEUT)     19.4     0.03            57.8

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 650 RPM, IDLE NEUTRAL 760 RPM,
                     PROPANE GAIN 50 RPM.

           SEQ#12 FEDERAL TEST PROC.     1.84     8.4    671.5    2.06                   12.9
           SEQ#12 50 MPH CRUISE         58.2     0.04           619.7
           SEQ#12 HIGHWAY FUEL ECON.     0.79     1.4    459.6    2.27                   19.1
           SEQ#12 4 SPD IDLE (NEUT)    157.0     0.20            79.9
           SEQ#12 4 SPD IDLE (2500)     42.1     0.03           174.2
           SEQ#12 4 SPD IDLE (NEUT)     87.3     0.01            72.4
           SEQ#12 4 SPD IDLE (DRIV)     70.1     0.01           130.3
           SEQ#12 FED 2 MODE (30)       75.7     0.02           428.6
           SEQ#12 FED 2 MODE (NEUT)     89.3     0.01            70.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .25%, HC 170 PPM,
                     PROPANE GAIN 90 RPM.

           SEQ#15 FEDERAL TEST PROC.     2.07     7.9    672.4    2.08                   12.8
           SEQ#15 50 MPH CRUISE         58.6     0.04           559.0
           SEQ#15 HIGHWAY FUEL ECON.     0.78     1.5    466.6    2.19                   18.8
           SEQ#15 4 SPD IDLE (NEUT)    501.8     0.01            75.4
           SEQ#15 4 SPD IDLE (2500)     59.9     0.03           169.1
           SEQ#15 4 SPD IDLE (NEUT)    341.8     0.01            68.0
           SEQ#15 4 SPD IDLE (DRIV)    190.0     0.01           124.4
           SEQ#15 FED 2 MODE (30)       82.7     0.02           389.2
           SEQ#15 FED 2 MODE (NEUT)    284.7     0.01            65.4

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                      AUTOMOTIVE TESTING LABORATORIES,INC.

                             TEXAS PILOT I/M STUDY


                            LISTING OF TEST RESULTS
                                  HOUSTON #2

                                              EMISSION RESULTS           FUEL
VEH.                                  --------- GRAMS / MILE ----------  ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC     CO      CO2   NOxc   CH4   MPG
----  -- ---- --- -----------------   -----  -----  ------  -----  ----  ----
6427  76 FORD 302 302"A"(1CEF)     (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                     FILTER, PCV VALVE AND FILTER, AIR AND FUEL
                     FILTER.  SET TC SPEC.

           SEQ#16 FEDERAL TEST PROC.    2.31    7.5   660.6   2.25        13.1
           SEQ#16 50 MPH CRUISE         58.9   0.03          596.4
           SEQ#16 HIGHWAY FUEL ECON.    0.86    1.3   455.5   2.47        19.3
           SEQ#16 4 SPD IDLE (NEUT)    639.4   0.01           66.5
           SEQ#16 4 SPD IDLE (2500)     93.3   0.02          148.3
           SEQ#16 4 SPD IDLE (NEUT)    437.0   0.01           58.6
           SEQ#16 4 SPD IDLE (DRIV)    247.5   0.00           98.8
           SEQ#16 FED 2 MODE (30)       82.3   0.01          341.7
           SEQ#16 FED 2 MODE (NEUT)    441.5   0.01           51.4

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:  211  CO:  0.02   GAIN: 230

6428  76 FORD 351 351W"B"(1CET)

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:   21  CO:  0.42   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.    1.76   29.4   655.2   6.40        12.6
           SEQ#11 50 MPH CRUISE         48.3   0.42         2141.7
           SEQ#11 HIGHWAY FUEL ECON.    0.84   17.1   495.6   7.70        16.9
           SEQ#11 4 SPD IDLE (NEUT)    247.6   2.29           50.8
           SEQ#11 4 SPD IDLE (2500)     90.9   0.10          593.4
           SEQ#11 4 SPD IDLE (NEUT)     38.8   0.18           53.8
           SEQ#11 4 SPD IDLE (DRIV)    125.4   1.05           69.6
           SEQ#11 FED 2 MODE (30)       52.3   0.09          956.9
           SEQ#11 FED 2 MODE (NEUT)     35.5   0.28           44.9

           NO FOLLOW UP LANE TEST DONE


           COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 60 RPM.

           SEQ#12 FEDERAL TEST PROC.    1.54   18.7   705.8   6.57        12.0
           SEQ#12 50 MPH CRUISE         43.7   0.49         2046.5
           SEQ#12 HIGHWAY FUEL ECON.    0.79   19.8   519.4   7.70        16.0
           SEQ#12 4 SPD IDLE (NEUT)    330.8   0.13           82.1
           SEQ#12 4 SPD IDLE (2500)     62.5   0.13          594.4
           SEQ#12 4 SPD IDLE (NEUT)     70.4   0.07           63.4
           SEQ#12 4 SPD IDLE (DRIV)     75.7   0.09          210.4
           SEQ#12 FED 2 MODE (30)       49.7   0.16          949.4
           SEQ#12 FED 2 MODE (NEUT)     88.0   0.09           59.8

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                        AUTOMOTIVE TESTING LABORATORIES,INC.

                               TEXAS PILOT I/M STUDY


                             LISTING OF TEST RESULTS
                                   HOUSTON #2

                                                     EMISSION RESULTS              FUEL
VEH.                                         --------- GRAMS / MILE ----------     ECON
 NO.   YR MAKE CID     ENGINE FAMILY         HC      CO     CO2    NOxc    CH4     MPG
----   -- ---- --- -----------------       -----   -----  ------  -----   ----    ----
6428   76 FORD 351 351W"B"(1CET)     (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .1%, HC 110 PPM,
                    PROPANE GAIN 90 RPM.

          SEQ#15 FEDERAL TEST PROC.    1.60    21.0   695.9   6.44            12.1
          SEQ#15 50 MPH CRUISE         44.7    0.46         2091.6
          SEQ#15 HIGHWAY FUEL ECON.    0.81    19.7   510.7   7.29            16.3
          SEQ#15 4 SPD IDLE (NEUT)    397.1    0.11           73.4
          SEQ#15 4 SPD IDLE (2500)     66.8    0.12          498.4
          SEQ#15 4 SPD IDLE (NEUT)    122.1    0.06           56.5
          SEQ#15 4 SPD IDLE (DRIV)     87.6    0.05          201.9
          SEQ#15 FED 2 MODE (30)       46.4    0.13          951.9
          SEQ#15 FED 2 MODE (NEUT)    156.3    0.06           56.0

          NO FOLLOW UP LANE TEST DONE


          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                    AND FILTER, FUEL FILTER, OIL AND OIL FILTER, EGR
                    BACK PRESSURE TRANSDUCER.  SET TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    1.49    10.0   716.1   3.55            12.1
          SEQ#16 50 MPH CRUISE         40.1    0.14          893.7
          SEQ#16 HIGHWAY FUEL ECON.    0.81     6.8   510.6   4.40            16.9
          SEQ#16 4 SPD IDLE (NEUT)    247.6    0.09           77.4
          SEQ#16 4 SPD IDLE (2500)    204.1    0.08          167.0
          SEQ#16 4 SPD IDLE (NEUT)    102.2    0.05           56.5
          SEQ#16 4 SPD IDLE (DRIV)     63.5    0.04          189.8
          SEQ#16 FED 2 MODE (30)       39.8    0.04          379.1
          SEQ#16 FED 2 MODE (NEUT)     57.6    0.05           51.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   74  CO:  0.07   GAIN: 130


6429   76 FORD 351 351W"B"(1CET)

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   21  CO:  0.29   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.    2.41    26.7   726.5   3.42            11.4
          SEQ#11 50 MPH CRUISE         74.7    0.09         1029.5
          SEQ#11 HIGHWAY FUEL ECON.    1.20     4.0   505.2   4.78            17.2
          SEQ#11 4 SPD IDLE (NEUT)    133.4    2.22           65.5
          SEQ#11 4 SPD IDLE (2500)     22.7    0.08          171.4
          SEQ#11 4 SPD IDLE (NEUT)     15.8    0.22           49.8
          SEQ#11 4 SPD IDLE (DRIV)    181.3    2.45           81.8
          SEQ#11 FED 2 MODE (30)       60.2    0.08          486.3
          SEQ#11 FED 2 MODE (NEUT)     20.7    0.26           48.5

          NO FOLLOW UP LANE TEST DONE




  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6429	76	FORD	351	351W"B"(1CET) (CON'T)						
				COMMENT : ADJUSTED IDLE DRIVE 650 RPM, IDLE NEUTRAL 850 RPM, PROPANE GAIN 50 RPM. USED UNIVERSAL METHOD.						
				SEQ#12 FEDERAL TEST PROC.	1.96	10.5	703.8	3.57		12.2
				SEQ#12 50 MPH CRUISE	60.2	0.08		1019.5		
				SEQ#12 HIGHWAY FUEL ECON.	1.10	2.9	483.5	4.54		18.1
				SEQ#12 4 SPD IDLE (NEUT)	72.8	0.13		87.3		
				SEQ#12 4 SPD IDLE (2500)	26.0	0.09		177.9		
				SEQ#12 4 SPD IDLE (NEUT)	44.1	0.07		69.2		
				SEQ#12 4 SPD IDLE (DRIV)	62.9	0.08		210.4		
				SEQ#12 FED 2 MODE (30)	85.0	0.06		383.3		
				SEQ#12 FED 2 MODE (NEUT)	52.6	0.07		68.4		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .25%, HC 100 PPM, PROPANE GAIN 70 RPM.						
				SEQ#15 FEDERAL TEST PROC.	1.79	11.8	710.8	3.60		12.1
				SEQ#15 50 MPH CRUISE	60.5	0.08		1044.6		
				SEQ#15 HIGHWAY FUEL ECON.	1.05	3.1	485.1	4.42		18.0
				SEQ#15 4 SPD IDLE (NEUT)	89.3	0.14		87.5		
				SEQ#15 4 SPD IDLE (2500)	19.7	0.08		174.7		
				SEQ#15 4 SPD IDLE (NEUT)	57.6	0.06		65.7		
				SEQ#15 4 SPD IDLE (DRIV)	74.4	0.11		208.8		
				SEQ#15 FED 2 MODE (30)	38.8	0.05		445.8		
				SEQ#15 FED 2 MODE (NEUT)	34.2	0.07		64.3		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : MAJOR TUNE-UP. REPLACED AIR, FUEL, OIL AND CRANKCASE BREATHER FILTERS, SPARK PLUGS, PCV VALVE, ENGINE OIL.						
				SEQ#16 FEDERAL TEST PROC.	2.24	14.4	697.3	3.41		12.2
				SEQ#16 50 MPH CRUISE	27.9	0.03		347.8		
				SEQ#16 HIGHWAY FUEL ECON.	1.03	2.9	484.5	4.49		18.0
				SEQ#16 4 SPD IDLE (NEUT)	49.0	0.04		30.2		
				SEQ#16 4 SPD IDLE (2500)	11.8	0.02		63.3		
				SEQ#16 4 SPD IDLE (NEUT)	16.7	0.02		25.5		
				SEQ#16 4 SPD IDLE (DRIV)	26.6	0.02		80.3		
				SEQ#16 FED 2 MODE (30)	17.1	0.02		138.0		
				SEQ#16 FED 2 MODE (NEUT)	26.0	0.02		22.7		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 24 CO: 0.11 GAIN: 100						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6431	76	FORD	400	351M/400(2CET)						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 127 CO: 0.03 GAIN: 0

Test	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	1.66	10.6	773.0	2.02		11.2
SEQ#11 50 MPH CRUISE	25.3	0.02		327.5		
SEQ#11 HIGHWAY FUEL ECON.	0.53	0.9	537.5	2.17		16.4
SEQ#11 4 SPD IDLE (NEUT)	555.7	2.46		63.7		
SEQ#11 4 SPD IDLE (2500)	179.0	0.04		122.9		
SEQ#11 4 SPD IDLE (NEUT)	134.1	0.01		141.4		
SEQ#11 4 SPD IDLE (DRIV)	145.4	2.51		133.7		
SEQ#11 FED 2 MODE (30)	56.3	0.02		268.9		
SEQ#11 FED 2 MODE (NEUT)	243.6	0.03		87.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 60 RPM.
USED UNIVERSAL CO METHOD.

Test	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	1.90	10.9	738.9	2.26		11.6
SEQ#12 50 MPH CRUISE	24.0	0.02		306.3		
SEQ#12 HIGHWAY FUEL ECON.	0.60	1.3	538.5	2.09		16.4
SEQ#12 4 SPD IDLE (NEUT)	639.4	0.05		91.3		
SEQ#12 4 SPD IDLE (2500)	138.0	0.02		128.0		
SEQ#12 4 SPD IDLE (NEUT)	206.2	0.01		127.2		
SEQ#12 4 SPD IDLE (DRIV)	59.2	0.00		306.3		
SEQ#12 FED 2 MODE (30)	65.8	0.01		271.9		
SEQ#12 FED 2 MODE (NEUT)	441.5	0.01		106.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 55 RPM.

Test	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.44	8.5	712.7	2.44		12.1
SEQ#15 50 MPH CRUISE	26.9	0.01		329.6		
SEQ#15 HIGHWAY FUEL ECON.	0.57	1.4	536.6	2.60		16.4
SEQ#15 4 SPD IDLE (NEUT)	639.4	0.02		86.9		
SEQ#15 4 SPD IDLE (2500)	214.4	0.02		121.1		
SEQ#15 4 SPD IDLE (NEUT)	282.5	0.01		117.0		
SEQ#15 4 SPD IDLE (DRIV)	69.1	0.00		231.5		
SEQ#15 FED 2 MODE (30)	94.9	0.01		241.6		
SEQ#15 FED 2 MODE (NEUT)	313.2	0.01		88.0		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                                TEXAS PILOT I/M STUDY


                               LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                   EMISSION RESULTS                  FUEL
VEH.                                      --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO      CO2    NOxc    CH4       MPG
----   -- ---- ---  ----------------      -----   -----   ------   ----    ----      ----
6431   76 FORD 400  351M/400(2CET)       (CON'T)

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                   OIL AND CRANKCASE BREATHER FILTERS, PCV VALVE.

         SEQ#16 FEDERAL TEST PROC.     1.60     9.3    722.5    2.06              12.0
         SEQ#16 50 MPH CRUISE          20.7     0.02           290.1
         SEQ#16 HIGHWAY FUEL ECON.     0.54     0.8    530.2    2.07              16.6
         SEQ#16 4 SPD IDLE (NEUT)     590.9     0.01            97.5
         SEQ#16 4 SPD IDLE (2500)     130.4     0.02           110.1
         SEQ#16 4 SPD IDLE (NEUT)     171.7     0.01           113.9
         SEQ#16 4 SPD IDLE (DRIV)      71.1     0.00           317.4
         SEQ#16 FED 2 MODE (30)        42.7     0.01           244.6
         SEQ#16 FED 2 MODE (NEUT)     211.1     0.00            82.9

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   137  CO:   0.02    GAIN: 170

6432   76 FORD 400 351M/400(2CET)

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:   86   CO:   0.03    GAIN:   0

         SEQ#11 FEDERAL TEST PROC.     0.92     5.2    753.2    1.99              11.6
         SEQ#11 50 MPH CRUISE          11.5     0.01           294.2
         SEQ#11 HIGHWAY FUEL ECON.     0.32     1.0    517.8    2.16              17.1
         SEQ#11 4 SPD IDLE (NEUT)     466.4     4.36            43.2
         SEQ#11 4 SPD IDLE (2500)     141.0     0.03           126.2
         SEQ#11 4 SPD IDLE (NEUT)     413.8     4.67            41.6
         SEQ#11 4 SPD IDLE (DRIV)     265.3     5.62            54.9
         SEQ#11 FED 2 MODE (30)        34.5     0.01           335.6
         SEQ#11 FED 2 MODE (NEUT)      82.7     0.01            62.3

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 60 RPM.
                     USED UNIVERSAL PROPANE METHOD.

         SEQ#12 FEDERAL TEST PROC.     0.98     4.0    730.4    2.55              12.0
         SEQ#12 50 MPH CRUISE           4.3     0.01           281.0
         SEQ#12 HIGHWAY FUEL ECON.     0.36     0.6    528.1    2.24              16.7
         SEQ#12 4 SPD IDLE (NEUT)     348.8     0.01           122.1
         SEQ#12 4 SPD IDLE (2500)     145.0     0.02           117.5
         SEQ#12 4 SPD IDLE (NEUT)     188.7     0.01           143.7
         SEQ#12 4 SPD IDLE (DRIV)      71.8     0.00           312.4
         SEQ#12 FED 2 MODE (30)        41.1     0.01           239.6
         SEQ#12 FED 2 MODE (NEUT)     312.2     0.01           122.6

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:    94  CO:   0.02    GAIN: 120


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                     AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                                  EMISSION RESULTS                FUEL
VEH.                                    --------- GRAMS / MILE ----------         ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2    NOxc    CH4      MPG
----  -- ---- --- ----------------     -----   -----   ------   -----   ----     ----
6432  76 FORD 400 351M/400(2CET)      (CON'T)

         COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

         SEQ#15 FEDERAL TEST PROC.     0.98     1.8    714.2    2.53             12.3
         SEQ#15 50 MPH CRUISE           7.5    0.01            260.8
         SEQ#15 HIGHWAY FUEL ECON.     0.44     0.6    512.5    2.07             17.2
         SEQ#15 4 SPD IDLE (NEUT)     387.7    0.01            116.5
         SEQ#15 4 SPD IDLE (2500)     137.4    0.02            111.6
         SEQ#15 4 SPD IDLE (NEUT)     217.8    0.01            110.8
         SEQ#15 4 SPD IDLE (DRIV)      51.6    0.00            296.2
         SEQ#15 FED 2 MODE (30)        60.5    0.01            279.0
         SEQ#15 FED 2 MODE (NEUT)     238.6    0.01             84.9

         FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
         HC:   107  CO:   0.03   GAIN: 123

6433  76 FORD 460 460"A"(2CMT)

         PRELIMINARY LANE TEST:
         CAT: P     FUEL: P
         HC:   358  CO:   6.20   GAIN:  10

         SEQ#11 FEDERAL TEST PROC.     3.82   111.8    691.2    3.46             10.1
         SEQ#11 50 MPH CRUISE          62.5    1.90           1154.8
         SEQ#11 HIGHWAY FUEL ECON.     1.92    69.5    500.1    3.73             14.4
         SEQ#11 4 SPD IDLE (NEUT)     235.6    5.27             36.2
         SEQ#11 4 SPD IDLE (2500)      76.1    1.69            259.8
         SEQ#11 4 SPD IDLE (NEUT)     240.3    5.04             40.8
         SEQ#11 4 SPD IDLE (DRIV)     255.0    6.35             42.0
         SEQ#11 FED 2 MODE (30)       105.5    2.19            515.6
         SEQ#11 FED 2 MODE (NEUT)     295.1    6.27             35.0

         NO FOLLOW UP LANE TEST DONE

         COMMENT : CONNECTED VACUUM LINE ROUTINGS.

         SEQ#13 FEDERAL TEST PROC.     0.86     8.2    839.5    3.01             10.4
         SEQ#13 50 MPH CRUISE           3.0    0.04            856.7
         SEQ#13 HIGHWAY FUEL ECON.     0.17     1.7    619.4    3.26             14.3
         SEQ#13 4 SPD IDLE (NEUT)     965.3    0.03             47.7
         SEQ#13 4 SPD IDLE (2500)      16.7    0.05            236.3
         SEQ#13 4 SPD IDLE (NEUT)     433.5    0.06             38.1
         SEQ#13 4 SPD IDLE (DRIV)     115.8    0.02             83.0
         SEQ#13 FED 2 MODE (30)        46.7    0.08            418.5
         SEQ#13 FED 2 MODE (NEUT)     672.2    0.03             49.4

         FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
         HC:    82  CO:   0.02   GAIN: 180


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6433	76	FORD	460	460"A"(2CMT) (CON'T)						

COMMENT : ADJUSTED TIMING TO MANUFACTURER SPEC, CO .04%, HC 200 PPM, IDLE DRIVE 650 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#14 FEDERAL TEST PROC.	1.02	11.5	848.7	2.99		10.2
SEQ#14 50 MPH CRUISE	5.9	0.03		753.1		
SEQ#14 HIGHWAY FUEL ECON.	0.15	3.7	639.6	3.43		13.7
SEQ#14 4 SPD IDLE (NEUT)	1187.4	0.05		56.3		
SEQ#14 4 SPD IDLE (2500)	146.4	0.04		246.7		
SEQ#14 4 SPD IDLE (NEUT)	701.9	0.04		52.1		
SEQ#14 4 SPD IDLE (DRIV)	252.3	0.04		123.7		
SEQ#14 FED 2 MODE (30)	82.0	0.24		475.1		
SEQ#14 FED 2 MODE (NEUT)	768.5	0.03		54.7		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 175 CO: 0.04 GAIN: 180

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 690 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.05	8.6	821.0	3.29		10.6
SEQ#15 50 MPH CRUISE	1.0	0.03		896.8		
SEQ#15 HIGHWAY FUEL ECON.	0.16	3.0	626.3	4.05		14.1
SEQ#15 4 SPD IDLE (NEUT)	1602.9	0.07		30.5		
SEQ#15 4 SPD IDLE (2500)	100.9	0.08		289.1		
SEQ#15 4 SPD IDLE (NEUT)	400.8	0.07		57.1		
SEQ#15 4 SPD IDLE (DRIV)	132.7	0.03		134.2		
SEQ#15 FED 2 MODE (30)	44.1	0.04		666.2		
SEQ#15 FED 2 MODE (NEUT)	1111.7	0.03		55.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, PCV VALVE, OIL AND OIL FILTER, FUEL FILTER, EGR BACKPRESSURE TRANSDUCER . ADJUSTED PRIMARY VACUUM BREAK AND CHOKE NOTCHES TO SPEC. REPLACED HEATED AIR INLET TUBE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	3.38	3.2	772.7	2.28		11.3
SEQ#16 50 MPH CRUISE	12.5	0.04		386.2		
SEQ#16 HIGHWAY FUEL ECON.	0.59	1.5	576.1	2.46		15.3
SEQ#16 4 SPD IDLE (NEUT)	2035.0	0.06		16.4		
SEQ#16 4 SPD IDLE (2500)	159.7	0.06		115.4		
SEQ#16 4 SPD IDLE (NEUT)	899.0	0.08		12.2		
SEQ#16 4 SPD IDLE (DRIV)	532.8	0.06		35.7		
SEQ#16 FED 2 MODE (30)	75.1	0.02		284.1		
SEQ#16 FED 2 MODE (NEUT)	1738.4	0.06		11.4		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 168 CO: 0.02 GAIN: 270

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS                    FUEL
VEH.                                         --------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID    ENGINE FAMILY           HC      CO       CO2      NOxc     CH4        MPG
----   -- ---- ---  ----------------        -----   -----    ------    -----    ----       ----
6434   76 BUIC 231  40E2Z

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:  280   CO: 10.39   GAIN:    0

            SEQ#11 FEDERAL TEST PROC.       5.77   144.6     448.9     3.19                12.8
            SEQ#11 50 MPH CRUISE          148.7     2.93            1650.7
            SEQ#11 HIGHWAY FUEL ECON.       1.38    35.0     354.9     4.51                21.4
            SEQ#11 4 SPD IDLE (NEUT)      330.8    10.41              22.5
            SEQ#11 4 SPD IDLE (2500)      232.3     5.50             218.1
            SEQ#11 4 SPD IDLE (NEUT)      339.6    10.49              26.9
            SEQ#11 4 SPD IDLE (DRIV)      333.0    10.65              32.8
            SEQ#11 FED 2 MODE (30)        310.0     5.76             804.1
            SEQ#11 FED 2 MODE (NEUT)      346.2    10.65              33.7

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 50 RPM.
                       USED UNIVERSAL METHOD.  CLEARED OBSTRUCTION IN
                      EGR VALVE.

            SEQ#12 FEDERAL TEST PROC.       2.79    47.2     561.8     2.06                13.8
            SEQ#12 50 MPH CRUISE           27.3     0.26             413.5
            SEQ#12 HIGHWAY FUEL ECON.       0.39    11.0     392.6     2.92                21.6
            SEQ#12 4 SPD IDLE (NEUT)       65.8     0.80              71.2
            SEQ#12 4 SPD IDLE (2500)       95.9     1.78              98.3
            SEQ#12 4 SPD IDLE (NEUT)       78.7     1.17              74.6
            SEQ#12 4 SPD IDLE (DRIV)       40.4     0.02             225.4
            SEQ#12 FED 2 MODE (30)        195.4     2.01             233.2
            SEQ#12 FED 2 MODE (NEUT)       89.6     1.65              84.9

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .19%, HC 100 PPM.
                       USED UNIVERSAL METHOD.

            SEQ#13 FEDERAL TEST PROC.       1.75    34.5     569.9     1.96                14.1
            SEQ#13 50 MPH CRUISE           22.7     0.58             317.4
            SEQ#13 HIGHWAY FUEL ECON.       0.21     8.6     382.1     2.52                22.4
            SEQ#13 4 SPD IDLE (NEUT)       13.8     0.44              45.5
            SEQ#13 4 SPD IDLE (2500)       75.4     2.10              85.5
            SEQ#13 4 SPD IDLE (NEUT)        9.8     0.27              27.7
            SEQ#13 4 SPD IDLE (DRIV)       11.2     0.09             197.1
            SEQ#13 FED 2 MODE (30)        183.7     2.07             199.3
            SEQ#13 FED 2 MODE (NEUT)       21.0     0.47              56.0

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:   20   CO:  0.15   GAIN: 130
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS — GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6434	76	BUIC	231	40E2Z (CON'T)						

COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .1%, HC 80 PPM, PROPANE GAIN 140 RPM. ADJUSTED TIMING TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#14 FEDERAL TEST PROC.	1.82	23.0	517.1	2.61		15.9
SEQ#14 50 MPH CRUISE	19.4	0.19		451.9		
SEQ#14 HIGHWAY FUEL ECON.	0.17	5.4	373.2	3.40		23.2
SEQ#14 4 SPD IDLE (NEUT)	59.2	0.01		70.9		
SEQ#14 4 SPD IDLE (2500)	78.0	1.20		81.6		
SEQ#14 4 SPD IDLE (NEUT)	39.8	0.01		77.7		
SEQ#14 4 SPD IDLE (DRIV)	115.1	0.01		495.4		
SEQ#14 FED 2 MODE (30)	174.3	1.33		259.8		
SEQ#14 FED 2 MODE (NEUT)	67.1	0.01		72.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 600 RPMS, CO .03%, HC 60 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.33	19.3	508.6	2.51		16.3
SEQ#15 50 MPH CRUISE	14.1	0.18		581.1		
SEQ#15 HIGHWAY FUEL ECON.	0.19	6.4	380.2	3.47		22.7
SEQ#15 4 SPD IDLE (NEUT)	43.7	0.01		75.4		
SEQ#15 4 SPD IDLE (2500)	48.3	0.94		71.0		
SEQ#15 4 SPD IDLE (NEUT)	28.9	0.01		80.6		
SEQ#15 4 SPD IDLE (DRIV)	9.8	0.01		343.7		
SEQ#15 FED 2 MODE (30)	114.5	1.00		267.9		
SEQ#15 FED 2 MODE (NEUT)	54.6	0.01		77.2		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR, FUEL, OIL AND CRANKCASE BREATHER FILTERS, CHARCOAL CANISTER FILTER, ENGINE OIL AND PCV VALVE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	1.72	27.4	520.1	1.87		15.6
SEQ#16 50 MPH CRUISE	12.8	0.36		319.5		
SEQ#16 HIGHWAY FUEL ECON.	0.17	8.4	378.2	2.18		22.6
SEQ#16 4 SPD IDLE (NEUT)	52.0	0.01		63.2		
SEQ#16 4 SPD IDLE (2500)	51.0	1.46		66.9		
SEQ#16 4 SPD IDLE (NEUT)	41.1	0.01		63.3		
SEQ#16 4 SPD IDLE (DRIV)	17.4	0.01		211.4		
SEQ#16 FED 2 MODE (30)	128.1	1.47		191.4		
SEQ#16 FED 2 MODE (NEUT)	71.1	0.01		63.3		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 84 CO: 0.05 GAIN: 200

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                      AUTOMOTIVE TESTING LABORATORIES,INC.

                            TEXAS PILOT I/M STUDY


                           LISTING OF TEST RESULTS
                                 HOUSTON #2

                                                    EMISSION RESULTS                  FUEL
VEH.                                     --------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4        MPG
----   -- ---- --- -----------------     -----   -----   ------   -----   ----       ----
6435   76 BUIC 231 40E2Z

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:  148   CO:  3.94   GAIN:  20

            SEQ#11 FEDERAL TEST PROC.     2.30    39.2    519.4    2.97              15.1
            SEQ#11 50 MPH CRUISE         21.3     0.02           838.1
            SEQ#11 HIGHWAY FUEL ECON.     0.35     3.5    374.4    3.72              23.3
            SEQ#11 4 SPD IDLE (NEUT)    103.9     1.31             61.7
            SEQ#11 4 SPD IDLE (2500)     17.7     0.04            128.8
            SEQ#11 4 SPD IDLE (NEUT)    122.8     1.92             61.5
            SEQ#11 4 SPD IDLE (DRIV)    193.7     1.83            112.6
            SEQ#11 FED 2 MODE (30)       57.9     0.03            349.8
            SEQ#11 FED 2 MODE (NEUT)    137.4     2.41             57.5

            NO FOLLOW UP LANE TEST DONE


            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, IDLE NEUTRAL 730 RPM,
                          CO .45%, HC 65 PPM.  USED UNIVERSAL METHOD.

            SEQ#13 FEDERAL TEST PROC.     0.98    11.4    551.6    3.23              15.5
            SEQ#13 50 MPH CRUISE         16.4     0.02           842.1
            SEQ#13 HIGHWAY FUEL ECON.     0.17     0.7    376.1    3.60              23.5
            SEQ#13 4 SPD IDLE (NEUT)      8.5     0.01             68.1
            SEQ#13 4 SPD IDLE (2500)     12.1     0.02            135.7
            SEQ#13 4 SPD IDLE (NEUT)      8.5     0.01             75.4
            SEQ#13 4 SPD IDLE (DRIV)     19.4     0.01            208.8
            SEQ#13 FED 2 MODE (30)       42.1     0.05            463.0
            SEQ#13 FED 2 MODE (NEUT)     10.2     0.03             78.1

            NO FOLLOW UP LANE TEST DONE


            COMMENT : ADJUSTED TIMING TO SPEC, IDLE CO .3%, HC 80 PPM.

            SEQ#14 FEDERAL TEST PROC.     1.10    10.8    538.6    3.68              15.9
            SEQ#14 50 MPH CRUISE         24.3     0.02          1039.5
            SEQ#14 HIGHWAY FUEL ECON.     0.20     0.9    367.1    4.48              24.0
            SEQ#14 4 SPD IDLE (NEUT)     13.1     0.02             67.6
            SEQ#14 4 SPD IDLE (2500)     10.2     0.03            143.7
            SEQ#14 4 SPD IDLE (NEUT)      9.2     0.02             77.1
            SEQ#14 4 SPD IDLE (DRIV)     27.3     0.02            246.7
            SEQ#14 FED 2 MODE (30)       56.9     0.04            473.1
            SEQ#14 FED 2 MODE (NEUT)     16.7     0.04             76.4

            NO FOLLOW UP LANE TEST DONE




   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                       EMISSION RESULTS              FUEL
                                              ---------- GRAMS / MILE ----------     ECON
VEH.
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2    NOxc    CH4     MPG
----   -- ---- ---  -----------------       -----   -----   -----   -----   ---     ----
6435   76 BUIC 231  40E2Z      (CON'T)

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .11%, HC 135 PPM,
                      PROPANE GAIN 100 RPM.

            SEQ#15 FEDERAL TEST PROC.     1.15    12.2    525.1    3.37            16.2
            SEQ#15 50 MPH CRUISE         20.4     0.02          1049.6
            SEQ#15 HIGHWAY FUEL ECON.     0.22     0.7    369.8    4.26            23.9
            SEQ#15 4 SPD IDLE (NEUT)     26.6     0.02            53.6
            SEQ#15 4 SPD IDLE (2500)     17.1     0.05           146.5
            SEQ#15 4 SPD IDLE (NEUT)     12.5     0.01            59.0
            SEQ#15 4 SPD IDLE (DRIV)     23.6     C.01           147.0
            SEQ#15 FED 2 MODE (30)       56.9     0.03           455.9
            SEQ#15 FED 2 MODE (NEUT)     30.9     0.03            62.5

            NO FOLLOW UP LANE TEST DONE


            COMMENT : MAJOR TUNE-UP.  REPLACED AIR, FUEL, OIL AND
                      CRANKCASE BREATHER FILTERS, PCV VALVE, CHARCOAL
                      CANISTER FILTER AND SPARK PLUGS.

            SEQ#16 FEDERAL TEST PROC.     1.19    10.4    527.6    3.54            16.2
            SEQ#16 50 MPH CRUISE         19.4     0.02           951.9
            SEQ#16 HIGHWAY FUEL ECON.     0.20     0.5    375.9    4.56            23.5
            SEQ#16 4 SPD IDLE (NEUT)     26.0     0.01            50.9
            SEQ#16 4 SPD IDLE (2500)      8.9     0.02           145.7
            SEQ#16 4 SPD IDLE (NEUT)      8.5     0.01            57.9
            SEQ#16 4 SPD IDLE (DRIV)     23.3     0.01           152.1
            SEQ#16 FED 2 MODE (30)       50.6     0.03           461.0
            SEQ#16 FED 2 MODE (NEUT)     23.3     0.02            58.4

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:   21   CO:  0.03   GAIN: 180


6436   76 BUIC 350  40J2

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:  796   CO:  0.12   GAIN:  72

            SEQ#11 FEDERAL TEST PROC.    11.20     7.5    689.6    2.72            12.0
            SEQ#11 50 MPH CRUISE        711.0     0.04           631.8
            SEQ#11 HIGHWAY FUEL ECON.     4.56     2.2    516.3    3.60            16.6
            SEQ#11 4 SPD IDLE (NEUT)    134.4     0.01            36.6
            SEQ#11 4 SPD IDLE (2500)    422.6     0.03           168.3
            SEQ#11 4 SPD IDLE (NEUT)    201.1     0.01            42.3
            SEQ#11 4 SPD IDLE (DRIV)    161.0     0.01            50.6
            SEQ#11 FED 2 MODE (30)      685.9     0.03           301.3
            SEQ#11 FED 2 MODE (NEUT)    348.8     0.01            40.1

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                 FUEL
VEH.                                        ---------- GRAMS / MILE ----------         ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc    CH4     MPG
----  -- ---- ---  -----------------      -----   -----   ------   -----   ----    ----
6436  76 BUIC 350  40J2      (CON'T)

            COMMENT : REPLACED VACUUM ADVANCE DIAPHRAGM, EFE THERMAL
                      VACUUM SWITCH DURING PRE-ADJUSTMENT.  ADJUSTED
                      IDLE CO TO .4%.  1600 PPM HYDROCARBON CAUSED BY A
                      DEFECTIVE SPARK PLUG MISFIRING.

            SEQ#13 FEDERAL TEST PROC.   19.96    15.5    700.4    5.32            11.3
            SEQ#13 50 MPH CRUISE        972.4    0.04           2003.9
            SEQ#13 HIGHWAY FUEL ECON.    8.13     5.7    536.2    7.50            15.5
            SEQ#13 4 SPD IDLE (NEUT)   1935.0    0.35             42.3
            SEQ#13 4 SPD IDLE (2500)    708.7    0.03            249.7
            SEQ#13 4 SPD IDLE (NEUT)   1738.4    0.13             48.3
            SEQ#13 4 SPD IDLE (DRIV)   1980.8    0.21             68.3
            SEQ#13 FED 2 MODE (30)      798.6    0.03            677.3
            SEQ#13 FED 2 MODE (NEUT)   1600.3    0.06             48.0

            NO FOLLOW UP LANE TEST DONE


            COMMENT : IDLE MIXTURE SCREWS BENT.  ADJUSTED IDLE RPM TO
                      SPEC.

            SEQ#15 FEDERAL TEST PROC.   12.13     5.9    677.9    4.35            12.2
            SEQ#15 50 MPH CRUISE        979.5    0.08           1625.7
            SEQ#15 HIGHWAY FUEL ECON.    7.45     5.4    488.6    5.63            17.0
            SEQ#15 4 SPD IDLE (NEUT)    437.9    0.02             49.1
            SEQ#15 4 SPD IDLE (2500)    791.6    0.10            183.4
            SEQ#15 4 SPD IDLE (NEUT)    359.6    0.01             53.5
            SEQ#15 4 SPD IDLE (DRIV)    459.8    0.02             95.7
            SEQ#15 FED 2 MODE (30)      845.1    0.03            782.5
            SEQ#15 FED 2 MODE (NEUT)    588.6    0.00             64.7

            NO FOLLOW UP LANE TEST DONE


            COMMENT : MAJOR TUNE-UP.  REPLACED CARBURETOR, EGR VALVE,
                      SPARK PLUGS, AIR FILTER, FUEL FILTER, PCV VALVE,
                      CRANKCASE BREATHER FILTER, ENGINE OIL & FILTER,
                      CARBON CANISTER FILTER.  ADJUSTED TIMING, IDLE
                      SPEED, & MIXTURE TO SPEC.

            SEQ#16 FEDERAL TEST PROC.    1.78     7.1    656.9    1.96            13.2
            SEQ#16 50 MPH CRUISE         33.8    0.01            507.5
            SEQ#16 HIGHWAY FUEL ECON.    0.37     1.0    454.5    2.88            19.4
            SEQ#16 4 SPD IDLE (NEUT)    287.7    0.00             49.9
            SEQ#16 4 SPD IDLE (2500)     24.3    0.01            144.2
            SEQ#16 4 SPD IDLE (NEUT)    113.8    0.00             54.0
            SEQ#16 4 SPD IDLE (DRIV)     58.2    0.00             84.5
            SEQ#16 FED 2 MODE (30)       71.4    0.00            216.5
            SEQ#16 FED 2 MODE (NEUT)    257.7    0.00             37.5

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  132  CO:  0.03   GAIN: 191
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS — GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6439	76	CADI	500	60V4						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 470 CO: 1.08 GAIN: 20

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	5.86	144.4	689.3	1.65		9.5
SEQ#11 50 MPH CRUISE	102.9	3.39		192.4		
SEQ#11 HIGHWAY FUEL ECON.	3.41	149.0	505.2	1.35		11.8
SEQ#11 4 SPD IDLE (NEUT)	335.2	0.56		34.5		
SEQ#11 4 SPD IDLE (2500)	105.5	3.70		66.2		
SEQ#11 4 SPD IDLE (NEUT)	300.0	0.59		36.1		
SEQ#11 4 SPD IDLE (DRIV)	194.7	0.56		83.0		
SEQ#11 FED 2 MODE (30)	137.7	3.56		125.7		
SEQ#11 FED 2 MODE (NEUT)	319.8	0.33		37.1		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE SPEED 710 RPM, IDLE CO .4%, ACHIEVED AT STEP 5A OF IDLE CO CARBURETOR ADJUSTMENT PROCEDURE A-2.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	5.35	140.2	706.2	1.66		9.4
SEQ#13 50 MPH CRUISE	81.4	3.18		173.4		
SEQ#13 HIGHWAY FUEL ECON.	3.00	130.7	484.8	1.31		12.7
SEQ#13 4 SPD IDLE (NEUT)	260.7	0.06		60.6		
SEQ#13 4 SPD IDLE (2500)	85.0	3.36		67.8		
SEQ#13 4 SPD IDLE (NEUT)	229.2	0.07		62.4		
SEQ#13 4 SPD IDLE (DRIV)	60.2	0.04		151.4		
SEQ#13 FED 2 MODE (30)	116.8	3.10		142.9		
SEQ#13 FED 2 MODE (NEUT)	328.9	0.06		56.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE SPEED 600 RPM DRIVE, IDLE CO .15%, HC 170 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	3.67	99.1	636.5	1.53		11.0
SEQ#15 50 MPH CRUISE	79.0	2.55		191.6		
SEQ#15 HIGHWAY FUEL ECON.	2.75	116.5	452.5	1.21		13.8
SEQ#15 4 SPD IDLE (NEUT)	811.2	0.12		51.1		
SEQ#15 4 SPD IDLE (2500)	80.7	2.74		80.9		
SEQ#15 4 SPD IDLE (NEUT)	238.8	0.06		57.0		
SEQ#15 4 SPD IDLE (DRIV)	70.1	0.03		107.5		
SEQ#15 FED 2 MODE (30)	111.2	2.51		178.3		
SEQ#15 FED 2 MODE (NEUT)	297.8	0.07		51.1		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                  AUTOMOTIVE TESTING LABORATORIES,INC.

                         TEXAS PILOT I/M STUDY


                       LISTING OF TEST RESULTS
                             HOUSTON #2

                                             EMISSION RESULTS            FUEL
VEH.                                --------- GRAMS / MILE ----------    ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC     CO    CO2     NOxc   CH4    MPG
----  -- ---- --- -----------------  -----  ----- ------    -----  ----   ----
6439  76 CADI 500 60V4      (CON'T)

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUG, PCV VALCE
                   AND FILTER, OIL AND OIL FILTER, PURGE CANISTER
                   FILTER, AIR FILTER, FUEL FILTER.  SET TO
                   MANUFACTURER SPEC.

         SEQ#16 FEDERAL TEST PROC.    5.61   66.1   730.4    2.45         10.4
         SEQ#16 50 MPH CRUISE         97.9   2.72           411.4
         SEQ#16 HIGHWAY FUEL ECON.    2.56   79.3   481.7    1.54         14.4
         SEQ#16 4 SPD IDLE (NEUT)   1204.0   0.07            30.4
         SEQ#16 4 SPD IDLE (2500)    111.5   3.06           134.9
         SEQ#16 4 SPD IDLE (NEUT)    946.0   0.08            36.5
         SEQ#16 4 SPD IDLE (DRIV)    535.5   0.05            72.6
         SEQ#16 FED 2 MODE (30)      123.8   0.95           529.7
         SEQ#16 FED 2 MODE (NEUT)   1264.1   0.08            26.4

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  805  CO:  0.13  GAIN:  50

6441  76 CHEV 085 10WI

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: F
         HC:  310  CO:  7.45  GAIN:  16

         SEQ#11 FEDERAL TEST PROC.    3.23   34.4   291.8    2.84         24.9
         SEQ#11 50 MPH CRUISE         83.0   0.14          1598.1
         SEQ#11 HIGHWAY FUEL ECON.    0.90    3.5   236.4    3.57         36.3
         SEQ#11 4 SPD IDLE (NEUT)    372.5   9.36            34.4
         SEQ#11 4 SPD IDLE (2500)    102.2   1.30           145.5
         SEQ#11 4 SPD IDLE (NEUT)    320.8   7.53            40.3
         SEQ#11 FED 2 MODE (30)      146.0   0.11          2251.9
         SEQ#11 FED 2 MODE (NEUT)    394.2   8.26            38.9

         NO FOLLOW UP LANE TEST DONE


         COMMENT : NO MAINTENANCE PERFORMED DURING PRE-
                   ADJUSTMENT.IDLE CO OF .5% WAS ACHEIVED AT STEP 3C
                   OF CO ADJUSTMENT PROCEDURE M-1.IDLE NEUTRAL 770
                   RPM,CO .45%,HC 300 PPM.

         SEQ#13 FEDERAL TEST PROC.    2.31   15.4   298.2    2.94         26.9
         SEQ#13 50 MPH CRUISE         80.0   0.13          1575.6
         SEQ#13 HIGHWAY FUEL ECON.    0.91    2.9   225.9    3.66         38.0
         SEQ#13 4 SPD IDLE (NEUT)    194.7   0.24            42.9
         SEQ#13 4 SPD IDLE (2500)     42.7   0.13           159.3
         SEQ#13 4 SPD IDLE (NEUT)    178.7   0.17            42.8
         SEQ#13 FED 2 MODE (30)      109.2   0.09          1918.8
         SEQ#13 FED 2 MODE (NEUT)    185.7   0.27            52.4

         NO FOLLOW UP LANE TEST DONE




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                         AUTOMOTIVE TESTING LABORATORIES, INC.

                               TEXAS PILOT I/M STUDY


                              LISTING OF TEST RESULTS
                                    HOUSTON #2
                                                    EMISSION RESULTS                  FUEL
                                          ---------- GRAMS / MILE ----------          ECON
VEH.
 NO.  YR MAKE CID     ENGINE FAMILY        HC      CO      CO2     NOxc    CH4      MPG
----  -- ---- --- -----------------      -----   -----   ------  -----   ----     ----
6441  76 CHEV 085 10WI    (CON'T)

          COMMENT : ADJUSTED IDLE NEUTRAL 800 RPM,CO .2%,HC 400 PPM.

          SEQ#15 FEDERAL TEST PROC.     2.48    14.5    320.8    3.26              25.2
          SEQ#15 50 MPH CRUISE          98.9    0.18           2339.6
          SEQ#15 HIGHWAY FUEL ECON.     0.90     2.8    250.0    4.00              34.5
          SEQ#15 4 SPD IDLE (NEUT)     230.5    0.15             70.9
          SEQ#15 4 SPD IDLE (2500)      49.3    0.17            205.2
          SEQ#15 4 SPD IDLE (NEUT)     327.3    0.17             74.8
          SEQ#15 FED 2 MODE (30)       133.7    0.13           2701.9
          SEQ#15 FED 2 MODE (NEUT)     323.0    0.17             83.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,FUEL FILTER,
                    PCV VALVE,ENGINE OIL & FILTER,CARBON CANISTER
                    FILTER.ADJUSTED IDLE MIXTURE & SPEED TO SPEC.

          SEQ#16 FEDERAL TEST PROC.     2.69    14.6    327.4    3.31              24.7
          SEQ#16 50 MPH CRUISE          95.2    0.14           2121.7
          SEQ#16 HIGHWAY FUEL ECON.     0.92     2.9    253.6    4.23              34.0
          SEQ#16 4 SPD IDLE (NEUT)     218.8    0.34             65.0
          SEQ#16 4 SPD IDLE (2500)      69.8    0.17            212.3
          SEQ#16 4 SPD IDLE (NEUT)     231.2    0.23             66.4
          SEQ#16 FED 2 MODE (30)       131.4    0.12           2682.2
          SEQ#16 FED 2 MODE (NEUT)     190.0    0.44             77.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   14  CO:  0.00   GAIN:  23

          COMMENT : REPLACED CATALYTIC CONVERTER.

          SEQ#17 FEDERAL TEST PROC.     0.58    11.8    335.0    2.69              25.0
          SEQ#17 50 MPH CRUISE          24.6    0.01           2094.1
          SEQ#17 HIGHWAY FUEL ECON.     0.01     0.5    263.9    4.40              33.5
          SEQ#17 4 SPD IDLE (NEUT)      10.8    0.04              8.5
          SEQ#17 4 SPD IDLE (2500)       4.3    0.00            222.4
          SEQ#17 4 SPD IDLE (NEUT)       5.6    0.00             18.1
          SEQ#17 FED 2 MODE (30)        18.4    0.01           2402.2
          SEQ#17 FED 2 MODE (NEUT)       5.3    0.00             56.7

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   14  CO:  0.00   GAIN:  23



     [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6443	76	CHEV	305	10G2						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 402 CO: 4.25 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	2.75	45.7	518.5	2.89		14.8
SEQ#11 50 MPH CRUISE	30.9	0.05		821.9		
SEQ#11 HIGHWAY FUEL ECON.	0.32	3.4	424.4	4.01		20.6
SEQ#11 4 SPD IDLE (NEUT)	394.2	3.51		35.5		
SEQ#11 4 SPD IDLE (2500)	31.5	0.03		182.4		
SEQ#11 4 SPD IDLE (NEUT)	379.0	3.99		34.3		
SEQ#11 4 SPD IDLE (DRIV)	308.0	4.51		48.6		
SEQ#11 FED 2 MODE (30)	60.5	0.12		273.0		
SEQ#11 FED 2 MODE (NEUT)	429.1	3.89		32.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : RECONNECTED VAPOR CANISTER PURGE LINE AND CLEARED PCV LINE.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	1.72	16.7	552.9	2.92		15.2
SEQ#12 50 MPH CRUISE	16.1	0.01		224.4		
SEQ#12 HIGHWAY FUEL ECON.	0.16	1.0	429.6	3.94		20.6
SEQ#12 4 SPD IDLE (NEUT)	20.4	0.01		15.5		
SEQ#12 4 SPD IDLE (2500)	19.0	0.00		43.9		
SEQ#12 4 SPD IDLE (NEUT)	42.4	0.07		8.4		
SEQ#12 4 SPD IDLE (DRIV)	46.0	0.11		22.2		
SEQ#12 FED 2 MODE (30)	21.0	0.00		75.7		
SEQ#12 FED 2 MODE (NEUT)	50.6	0.06		10.1		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE RPM TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	0.85	5.5	560.4	2.92		15.5
SEQ#15 50 MPH CRUISE	14.8	0.01		706.6		
SEQ#15 HIGHWAY FUEL ECON.	0.10	0.3	423.3	3.81		20.9
SEQ#15 4 SPD IDLE (NEUT)	23.6	0.00		57.8		
SEQ#15 4 SPD IDLE (2500)	20.4	0.01		185.7		
SEQ#15 4 SPD IDLE (NEUT)	23.6	0.01		66.9		
SEQ#15 4 SPD IDLE (DRIV)	11.8	0.01		138.3		
SEQ#15 FED 2 MODE (30)	43.4	0.01		352.8		
SEQ#15 FED 2 MODE (NEUT)	53.9	0.01		55.3		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                             EMISSION RESULTS                FUEL
                                     -------- GRAMS / MILE ----------        ECON
VEH.
 NO.  YR MAKE CID   ENGINE FAMILY       HC      CO     CO2    NOxc   CH4     MPG
----  -- ---- --- ----------------   -----   -----  ------  -----  ----     ---
6443  76 CHEV 305 10G2     (CON'T)

         COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,CANISTER
                   FILTER,OIL AND OIL FILTER,PCV FILTER AND VALVE,
                   AIR FILTER,GAS FILTER,SET TO SPEC.ADJUSTED
                   PRIMARY VACUUM BREAK TO .140.

         SEQ#16 FEDERAL TEST PROC.    0.75     5.0   568.4    3.08           15.3
         SEQ#16 50 MPH CRUISE         12.8    0.01          741.0
         SEQ#16 HIGHWAY FUEL ECON.    0.09     0.4   423.5    3.73           20.9
         SEQ#16 4 SPD IDLE (NEUT)     36.8    0.00           53.8
         SEQ#16 4 SPD IDLE (2500)     18.1    0.00          181.6
         SEQ#16 4 SPD IDLE (NEUT)     32.2    0.00           59.5
         SEQ#16 4 SPD IDLE (DRIV)     15.1    0.00          157.0
         SEQ#16 FED 2 MODE (30)       48.7    0.01          345.7
         SEQ#16 FED 2 MODE (NEUT)     64.8    0.00           56.3

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   27  CO:  0.02   GAIN: 182

6445  76 CHEV 305 10G2

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  430  CO:  7.22   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.    2.63    62.9   503.4    2.70           14.5
         SEQ#11 50 MPH CRUISE          5.6    0.00          386.2
         SEQ#11 HIGHWAY FUEL ECON.    0.25     4.8   445.1    4.37           19.6
         SEQ#11 4 SPD IDLE (NEUT)    141.0    2.28           29.8
         SEQ#11 4 SPD IDLE (2500)     11.5    0.01           81.1
         SEQ#11 4 SPD IDLE (NEUT)    177.7    2.63           22.4
         SEQ#11 4 SPD IDLE (DRIV)    154.7    3.12           27.0
         SEQ#11 FED 2 MODE (30)       57.9    0.50          428.6
         SEQ#11 FED 2 MODE (NEUT)    199.7    2.51           21.6

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 60 RPM,
                   USED UNIVERSAL PROPANE METHOD.

         SEQ#12 FEDERAL TEST PROC.    0.94     6.7   569.1    3.16           15.2
         SEQ#12 50 MPH CRUISE          4.9    0.00          520.6
         SEQ#12 HIGHWAY FUEL ECON.    0.10     0.4   444.0    4.49           19.9
         SEQ#12 4 SPD IDLE (NEUT)     16.7    0.01           51.6
         SEQ#12 4 SPD IDLE (2500)     11.2    0.01          133.7
         SEQ#12 4 SPD IDLE (NEUT)     17.1    0.02           13.6
         SEQ#12 4 SPD IDLE (DRIV)     62.5    0.14           62.2
         SEQ#12 FED 2 MODE (30)       17.4    0.01          273.0
         SEQ#12 FED 2 MODE (NEUT)     24.3    0.00           53.0

         NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                                TEXAS PILOT I/M STUDY


                               LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                       EMISSION RESULTS                FUEL
VEH.                                          --------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY            HC     CO      CO2     NOXC   CH4       MPG
----   -- ---- ---  -----------------        -----  ----   ------   -----   ----      ----
6445   76 CHEV 305 10G2     (CON'T)

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .15%, HC 260 PPM.
                         ADJUSTED TO MANUFACTURER SPEC.

            SEQ#15 FEDERAL TEST PROC.    0.64    2.2    568.5    3.44            15.5
            SEQ#15 50 MPH CRUISE          8.9   0.00            471.1
            SEQ#15 HIGHWAY FUEL ECON.    0.08    0.1    448.8    4.42            19.8
            SEQ#15 4 SPD IDLE (NEUT)     17.7   0.00             53.1
            SEQ#15 4 SPD IDLE (2500)      9.5   0.00            139.3
            SEQ#15 4 SPD IDLE (NEUT)     15.8   0.00             58.4
            SEQ#15 4 SPD IDLE (DRIV)      6.6   0.00            150.6
            SEQ#15 FED 2 MODE (30)       12.5   0.01            244.6
            SEQ#15 FED 2 MODE (NEUT)     46.0   0.00             51.5

            NO FOLLOW UP LANE TEST DONE


            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                      OIL, CRANKCASE BREATHER, CHARCOAL CANISTER
                      FILTERS, PCV VALVE, HOT AND COLD AIR DUCTS AND
                      ENGINE OIL.  ADJUSTED IDLE MIXTURE AND SPEED,
                      IGNITION, TIMING.

            SEQ#16 FEDERAL TEST PROC.    0.48    1.8    649.0    2.03            13.6
            SEQ#16 50 MPH CRUISE          3.0   0.00            275.0
            SEQ#16 HIGHWAY FUEL ECON.    0.04    0.1    504.4    2.49            17.6
            SEQ#16 4 SPD IDLE (NEUT)     22.7   0.00             27.5
            SEQ#16 4 SPD IDLE (2500)      2.3   0.00             97.7
            SEQ#16 4 SPD IDLE (NEUT)     20.0   0.00             28.0
            SEQ#16 4 SPD IDLE (DRIV)      9.2   0.00             49.8
            SEQ#16 FED 2 MODE (30)        5.9   0.00            128.3
            SEQ#16 FED 2 MODE (NEUT)     54.9   0.00             20.7

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    18  CO:  0.02    GAIN: 290


6446   76 CHEV 350 10K4J

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC: 1210   CO: 10.29    GAIN:   4

            SEQ#11 FEDERAL TEST PROC.    3.59   71.4    582.5    3.78            12.6
            SEQ#11 50 MPH CRUISE         32.9   0.31            921.8
            SEQ#11 HIGHWAY FUEL ECON.    0.77   10.8    450.9    3.85            18.9
            SEQ#11 4 SPD IDLE (NEUT)    326.9   5.56             29.0
            SEQ#11 4 SPD IDLE (2500)     68.8   1.45            205.5
            SEQ#11 4 SPD IDLE (NEUT)    325.1   5.76             35.2
            SEQ#11 4 SPD IDLE (DRIV)    338.0   6.13             44.3
            SEQ#11 FED 2 MODE (30)      114.1   0.65            648.0
            SEQ#11 FED 2 MODE (NEUT)    315.4   5.64             42.8

            NO FOLLOW UP LANE TEST DONE



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
6446	76	CHEV	350	10K4J (CON'T)

COMMENT : UNPLUGGED EGR LINE DURING PROPANE PRE-ADJUSTMENT. IDLE RPM 600 DRIVE, PROPANE GAIN 50 RPM.

	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	2.27	29.7	559.1	3.20		14.5
SEQ#12 50 MPH CRUISE	50.6	0.33		1017.0		
SEQ#12 HIGHWAY FUEL ECON.	0.47	6.1	452.1	4.30		19.2
SEQ#12 4 SPD IDLE (NEUT)	197.7	1.24		32.1		
SEQ#12 4 SPD IDLE (2500)	53.0	0.92		214.0		
SEQ#12 4 SPD IDLE (NEUT)	188.0	1.24		37.4		
SEQ#12 4 SPD IDLE (DRIV)	225.8	1.50		55.7		
SEQ#12 FED 2 MODE (30)	119.4	1.17		499.4		
SEQ#12 FED 2 MODE (NEUT)	177.7	1.29		41.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE MIXTURE .5%, IDLE RPM 770 NEUTRAL, HC 270 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	2.06	24.2	579.6	3.23		14.2
SEQ#13 50 MPH CRUISE	23.0	0.19		681.3		
SEQ#13 HIGHWAY FUEL ECON.	0.43	6.7	426.1	3.97		20.3
SEQ#13 4 SPD IDLE (NEUT)	204.4	1.05		35.3		
SEQ#13 4 SPD IDLE (2500)	55.3	1.12		226.4		
SEQ#13 4 SPD IDLE (NEUT)	172.0	0.80		38.7		
SEQ#13 4 SPD IDLE (DRIV)	213.4	0.97		63.2		
SEQ#13 FED 2 MODE (30)	112.5	0.55		529.7		
SEQ#13 FED 2 MODE (NEUT)	191.7	0.85		41.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .2%, HC 170 PPM, PROPANE GAIN 70 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.94	22.8	581.2	3.20		14.2
SEQ#15 50 MPH CRUISE	40.4	0.27		871.7		
SEQ#15 HIGHWAY FUEL ECON.	0.26	3.9	460.4	3.98		19.0
SEQ#15 4 SPD IDLE (NEUT)	161.3	0.47		32.8		
SEQ#15 4 SPD IDLE (2500)	50.0	1.07		227.3		
SEQ#15 4 SPD IDLE (NEUT)	144.0	0.35		32.1		
SEQ#15 4 SPD IDLE (DRIV)	187.7	0.58		63.8		
SEQ#15 FED 2 MODE (30)	100.5	0.49		578.3		
SEQ#15 FED 2 MODE (NEUT)	193.4	0.36		36.8		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                               HOUSTON #2

                                                     EMISSION RESULTS           FUEL
VEH.                                         --------- GRAMS / MILE ---------   ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC     CO     CO2    NOxc   CH4   MPG
----  -- ---- --- -----------------       -----  -----  ------  -----  ----   ----
6446  76 CHEV 350 10K4J     (CON'T)

        COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,PCV VALVE,OIL
                  AND OIL FILTER,AIR FILTERR,PURGE CANISTER FILTERR.

        SEQ#16 FEDERAL TEST PROC.   0.70    7.5   584.7   3.43          14.8
        SEQ#16 50 MPH CRUISE        10.5   0.01        1372.7
        SEQ#16 HIGHWAY FUEL ECON.   0.07    0.4   434.9   5.13          20.4
        SEQ#16 4 SPD IDLE (NEUT)    21.7   0.00           53.3
        SEQ#16 4 SPD IDLE (2500)     0.0   0.01          305.3
        SEQ#16 4 SPD IDLE (NEUT)     7.2   0.00           55.0
        SEQ#16 4 SPD IDLE (DRIV)     5.3   0.00          102.6
        SEQ#16 FED 2 MODE (30)      11.8   0.01          613.6
        SEQ#16 FED 2 MODE (NEUT)    21.0   0.00           57.6

        FOLLOW UP LANE TEST:
        CAT: P    FUEL: P
        HC:   13  CO:  0.03   GAIN: 195

6447  76 CHEV 305 10G2

        PRELIMINARY LANE TEST:
        CAT: P    FUEL: P
        HC:  273  CO:  4.31   GAIN:   0

        SEQ#11 FEDERAL TEST PROC.   3.32   63.0   544.1   2.47          13.6
        SEQ#11 50 MPH CRUISE        13.5   0.01          961.9
        SEQ#11 HIGHWAY FUEL ECON.   0.26    3.5   434.0   3.68          20.2
        SEQ#11 4 SPD IDLE (NEUT)   424.7   5.07           43.5
        SEQ#11 4 SPD IDLE (2500)    27.9   0.04          153.4
        SEQ#11 4 SPD IDLE (NEUT)   260.4   2.59           61.2
        SEQ#11 4 SPD IDLE (DRIV)   278.9   3.55          113.4
        SEQ#11 FED 2 MODE (30)      29.6   0.01          481.2
        SEQ#11 FED 2 MODE (NEUT)   346.6   3.43           57.9

        NO FOLLOW UP LANE TEST DONE


        COMMENT : PROPANE PRE-ADJUSTMENT PROCEDURE HAD NO EFFECT.

        SEQ#12 FEDERAL TEST PROC.   1.88   27.5   563.6   2.85          14.5
        SEQ#12 50 MPH CRUISE        13.5   0.01         1179.8
        SEQ#12 HIGHWAY FUEL ECON.   0.26    6.8   438.9   3.70          19.7
        SEQ#12 4 SPD IDLE (NEUT)    14.4   0.01           66.9
        SEQ#12 4 SPD IDLE (2500)     0.0   0.00          160.3
        SEQ#12 4 SPD IDLE (NEUT)    79.7   0.09           31.5
        SEQ#12 4 SPD IDLE (DRIV)   142.7   0.29          114.7
        SEQ#12 FED 2 MODE (30)      18.1   0.00          414.5
        SEQ#12 FED 2 MODE (NEUT)    29.9   0.01           67.2

        NO FOLLOW UP LANE TEST DONE




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                  AUTOMOTIVE TESTING LABORATORIES,INC.

                         TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                                     EMISSION RESULTS               FUEL
VEH.                                        --------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO     CO2     NOxc     CH4    MPG
----   -- ---- ---  -----------------      -----   ----   -----    -----    ----   ----
6447   76 CHEV 305 10G2     (CON'T)

            COMMENT : ADJUSTED TIMING AS PRELIMINARY ADJUSTMENT TO
                      MANUFACTURER SPEC, IDLE DRIVE 600 RPM, CO .15%,
                      HC 250 PPM.

            SEQ#15 FEDERAL TEST PROC.       1.04    18.3   581.2    4.19           14.5
            SEQ#15 50 MPH CRUISE           16.4     0.01         1578.1
            SEQ#15 HIGHWAY FUEL ECON.       0.12     1.2   460.3    5.44           19.2
            SEQ#15 4 SPD IDLE (NEUT)       31.2     0.00           68.4
            SEQ#15 4 SPD IDLE (2500)        9.8     0.00          186.8
            SEQ#15 4 SPD IDLE (NEUT)       42.4     0.00           75.8
            SEQ#15 4 SPD IDLE (DRIV)       17.7     0.00          237.6
            SEQ#15 FED 2 MODE (30)         25.3     0.00          535.8
            SEQ#15 FED 2 MODE (NEUT)       58.6     0.00           82.6

            NO FOLLOW UP LANE TEST DONE

            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                      AND FILTER, AIR FFILTER, OIL AND OIL FFILTER,
                      PURGE CANISTER FFILTER, ADJUSTED CHOKE NOTCHES TO
                      SPEC, CLEANED EGR VALVE.  RECONNECTED FRESH AIR
                      DUCT.

            SEQ#16 FEDERAL TEST PROC.       1.12     5.6   590.8    4.08           14.7
            SEQ#16 50 MPH CRUISE           11.8     0.01         1147.3
            SEQ#16 HIGHWAY FUEL ECON.       0.12     0.8   434.8    4.69           20.3
            SEQ#16 4 SPD IDLE (NEUT)       15.8     0.01          109.8
            SEQ#16 4 SPD IDLE (2500)        3.0     0.00          176.2
            SEQ#16 4 SPD IDLE (NEUT)       15.4     0.00          122.1
            SEQ#16 4 SPD IDLE (DRIV)        9.5     0.01          562.1
            SEQ#16 FED 2 MODE (30)         25.0     0.01          520.6
            SEQ#16 FED 2 MODE (NEUT)       27.9     0.00          107.7

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    56  CO:   0.11   GAIN: 100

6448  76 CHEV 305 10G2

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:  544  CO:   7.44   GAIN:    0

            SEQ#11 FEDERAL TEST PROC.       3.34    79.5   539.7    2.86           13.1
            SEQ#11 50 MPH CRUISE           21.0     0.02          772.3
            SEQ#11 HIGHWAY FUEL ECON.       0.54     9.2   431.1    3.23           19.8
            SEQ#11 4 SPD IDLE (NEUT)      508.3     5.37           22.4
            SEQ#11 4 SPD IDLE (2500)       71.4     0.02          129.3
            SEQ#11 4 SPD IDLE (NEUT)      437.9     5.28           37.0
            SEQ#11 4 SPD IDLE (DRIV)      318.7     6.50           37.9
            SEQ#11 FED 2 MODE (30)        124.1     1.10          615.7
            SEQ#11 FED 2 MODE (NEUT)      535.0     5.81           38.7

            NO FOLLOW UP LANE TEST DONE


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6448	76	CHEV	305	10G2 (CON'T)						
				COMMENT : IDLE NEUTRAL WITHOUT PROPANE 820 RPM, WITH PROPANE 870 RPM.						
				SEQ#12 FEDERAL TEST PROC.	1.59	16.6	586.9	3.21		14.4
				SEQ#12 50 MPH CRUISE	12.5	0.01		812.8		
				SEQ#12 HIGHWAY FUEL ECON.	0.20	2.5	421.1	3.54		20.9
				SEQ#12 4 SPD IDLE (NEUT)	32.9	0.00		63.0		
				SEQ#12 4 SPD IDLE (2500)	83.3	0.00		150.6		
				SEQ#12 4 SPD IDLE (NEUT)	48.0	0.01		36.7		
				SEQ#12 4 SPD IDLE (DRIV)	171.7	0.25		102.4		
				SEQ#12 FED 2 MODE (30)	30.2	0.00		406.4		
				SEQ#12 FED 2 MODE (NEUT)	102.2	0.01		39.8		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : IDLE NEUTRAL 830 RPM, .5% CO, 350 PPM HC.						
				SEQ#13 FEDERAL TEST PROC.	0.95	11.4	590.2	3.31		14.5
				SEQ#13 50 MPH CRUISE	13.8	0.01		871.4		
				SEQ#13 HIGHWAY FUEL ECON.	0.14	1.6	441.9	3.83		20.0
				SEQ#13 4 SPD IDLE (NEUT)	35.5	0.01		89.2		
				SEQ#13 4 SPD IDLE (2500)	80.4	0.00		154.4		
				SEQ#13 4 SPD IDLE (NEUT)	37.1	0.01		91.9		
				SEQ#13 4 SPD IDLE (DRIV)	16.4	0.01		271.9		
				SEQ#13 FED 2 MODE (30)	28.3	0.01		429.6		
				SEQ#13 FED 2 MODE (NEUT)	47.7	0.01		91.8		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO SPEC.						
				SEQ#15 FEDERAL TEST PROC.	0.75	8.6	589.7	3.43		14.7
				SEQ#15 50 MPH CRUISE	15.1	0.00		838.1		
				SEQ#15 HIGHWAY FUEL ECON.	0.19	3.0	427.5	3.58		20.5
				SEQ#15 4 SPD IDLE (NEUT)	67.5	0.00		70.1		
				SEQ#15 4 SPD IDLE (2500)	82.3	0.00		152.1		
				SEQ#15 4 SPD IDLE (NEUT)	59.9	0.00		80.2		
				SEQ#15 4 SPD IDLE (DRIV)	17.7	0.00		236.6		
				SEQ#15 FED 2 MODE (30)	31.5	0.00		379.1		
				SEQ#15 FED 2 MODE (NEUT)	66.5	0.00		74.5		
				NO FOLLOW UP LANE TEST DONE						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6448	76	CHEV	305	10G2 (CON'T)						

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, FUEL FILTER, OIL FILTER, PCV VALVE, CRANKCASE BREATHER FILTER, CARBON CANISTER FILTER, ENGINE OIL AND FILTER. ADJUSTED TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	1.53	18.3	598.9	3.33		14.0
SEQ#16 50 MPH CRUISE	16.1	0.01		894.3		
SEQ#16 HIGHWAY FUEL ECON.	0.27	5.0	434.4	3.77		20.0
SEQ#16 4 SPD IDLE (NEUT)	57.2	0.00		66.1		
SEQ#16 4 SPD IDLE (2500)	77.1	0.00		135.2		
SEQ#16 4 SPD IDLE (NEUT)	32.9	0.00		64.9		
SEQ#16 4 SPD IDLE (DRIV)	21.0	0.00		177.8		
SEQ#16 FED 2 MODE (30)	38.1	0.01		315.4		
SEQ#16 FED 2 MODE (NEUT)	59.9	0.00		71.3		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 40 CO: 0.02 GAIN: 100

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
6449	76	CHEV	350	10J2

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 278 CO: 5.18 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	2.96	70.4	587.2	4.83		12.6
SEQ#11 50 MPH CRUISE	17.1	0.03		1525.5		
SEQ#11 HIGHWAY FUEL ECON.	0.48	7.7	458.5	6.36		18.8
SEQ#11 4 SPD IDLE (NEUT)	217.1	4.07		27.3		
SEQ#11 4 SPD IDLE (2500)	26.0	0.18		282.0		
SEQ#11 4 SPD IDLE (NEUT)	203.4	3.48		44.9		
SEQ#11 4 SPD IDLE (DRIV)	231.9	3.87		56.8		
SEQ#11 FED 2 MODE (30)	99.6	1.00		692.5		
SEQ#11 FED 2 MODE (NEUT)	232.5	3.82		46.7		

NO FOLLOW UP LANE TEST DONE

COMMENT : CORRECTED VACUUM LINE ROUTINGS.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	2.75	47.4	604.0	2.22		12.9
SEQ#12 50 MPH CRUISE	14.8	0.02		715.7		
SEQ#12 HIGHWAY FUEL ECON.	0.27	3.1	462.1	3.63		19.0
SEQ#12 4 SPD IDLE (NEUT)	117.5	0.27		42.7		
SEQ#12 4 SPD IDLE (2500)	10.2	0.02		149.6		
SEQ#12 4 SPD IDLE (NEUT)	54.3	0.05		33.0		
SEQ#12 4 SPD IDLE (DRIV)	97.6	0.12		76.6		
SEQ#12 FED 2 MODE (30)	28.9	0.02		173.2		
SEQ#12 FED 2 MODE (NEUT)	76.7	0.05		33.5		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                    EMISSION RESULTS                    FUEL
VEH.                                       ---------- GRAMS / MILE ----------           ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4          MPG
----   -- ---- ---  ------------------   -----   -----   ------   -----   ----         ----
6449   76 CHEV 350  10J2     (CON'T)

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM,CO .5%,HC 180
                      PPM.USED UNIVERSAL CO METHOD.

            SEQ#13 FEDERAL TEST PROC.    1.77    28.4    656.8    2.69                  12.6
            SEQ#13 50 MPH CRUISE        21.7     0.03           699.6
            SEQ#13 HIGHWAY FUEL ECON.    0.26     3.6    497.5    3.95                  17.6
            SEQ#13 4 SPD IDLE (NEUT)    50.3     0.00            54.9
            SEQ#13 4 SPD IDLE (2500)    12.5     0.01           142.1
            SEQ#13 4 SPD IDLE (NEUT)    37.8     0.03            39.8
            SEQ#13 4 SPD IDLE (DRIV)    86.3     0.10            75.0
            SEQ#13 FED 2 MODE (30)      23.0     0.01           176.8
            SEQ#13 FED 2 MODE (NEUT)    94.3     0.07            30.2

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM,CO 1.9%,HC 260
                      PPM.SET TO SPEC.

            SEQ#15 FEDERAL TEST PROC.    1.82    31.4    651.4    2.79                  12.6
            SEQ#15 50 MPH CRUISE        19.4     0.03           649.0
            SEQ#15 HIGHWAY FUEL ECON.    0.21     3.1    493.1    4.03                  17.8
            SEQ#15 4 SPD IDLE (NEUT)   100.9     0.21            45.2
            SEQ#15 4 SPD IDLE (2500)    15.4     0.01           139.3
            SEQ#15 4 SPD IDLE (NEUT)    32.9     0.02            42.4
            SEQ#15 4 SPD IDLE (DRIV)    55.3     0.06            63.9
            SEQ#15 FED 2 MODE (30)      26.3     0.02           200.4
            SEQ#15 FED 2 MODE (NEUT)    89.0     0.17            32.3

            NO FOLLOW UP LANE TEST DONE

            COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, AIR FILTER,
                      FUEL FILTER, PCV VALVE, CRANKCASE BREATHER FILTER,
                      ENGINE OIL AND FILTER, CARBON CANISTER FILTER,
                      EFE THERMAL VACUUM SWITCH, ADJUSTED CHOKE, IDLE
                      SPEED & MIXTURE.

            SEQ#16 FEDERAL TEST PROC.    0.96    15.2    636.0    2.42                  13.4
            SEQ#16 50 MPH CRUISE        11.2     0.01           504.5
            SEQ#16 HIGHWAY FUEL ECON.    0.14     0.8    484.8    3.34                  18.2
            SEQ#16 4 SPD IDLE (NEUT)   154.7     1.78            44.7
            SEQ#16 4 SPD IDLE (2500)    31.5     0.01           143.4
            SEQ#16 4 SPD IDLE (NEUT)    70.4     0.00            43.7
            SEQ#16 4 SPD IDLE (DRIV)    27.3     0.00            76.3
            SEQ#16 FED 2 MODE (30)      21.7     0.01           190.9
            SEQ#16 FED 2 MODE (NEUT)    80.0     0.00            42.7

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    43  CO:  0.02   GAIN: 163
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS — GRAMS / MILE: HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6450	76	CHEV	350	10J2						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 195 CO: 5.25 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	3.97	134.5	605.6	2.07		10.7
SEQ#11 50 MPH CRUISE	18.1	0.19		572.2		
SEQ#11 HIGHWAY FUEL ECON.	0.63	18.0	477.4	3.49		17.5
SEQ#11 4 SPD IDLE (NEUT)	208.8	4.24		70.4		
SEQ#11 4 SPD IDLE (2500)	89.6	2.71		115.4		
SEQ#11 4 SPD IDLE (NEUT)	203.4	4.23		74.1		
SEQ#11 4 SPD IDLE (DRIV)	248.3	5.16		136.7		
SEQ#11 FED 2 MODE (30)	145.7	3.36		117.8		
SEQ#11 FED 2 MODE (NEUT)	206.1	4.21		75.1		

NO FOLLOW UP LANE TEST DONE

COMMENT : 50 RPM PROPANE GAIN ACHEIVED AT STEP 9 OF PROPANE ADJUSTMENT PROCEDURE A-2.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	2.73	69.5	623.4	2.17		12.0
SEQ#12 50 MPH CRUISE	17.1	0.13		473.1		
SEQ#12 HIGHWAY FUEL ECON.	0.39	10.1	455.9	3.15		18.8
SEQ#12 4 SPD IDLE (NEUT)	47.4	0.42		46.0		
SEQ#12 4 SPD IDLE (2500)	46.4	1.55		119.3		
SEQ#12 4 SPD IDLE (NEUT)	55.6	0.70		53.7		
SEQ#12 4 SPD IDLE (DRIV)	139.4	1.13		142.6		
SEQ#12 FED 2 MODE (30)	104.9	2.00		128.3		
SEQ#12 FED 2 MODE (NEUT)	76.7	0.85		59.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE CO OF .5% ACHEIVED AT STEP 5C OF CO ADJUSTMENT PROCEDURE A-2.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	2.41	55.4	642.1	2.11		12.0
SEQ#13 50 MPH CRUISE	11.8	0.05		553.0		
SEQ#13 HIGHWAY FUEL ECON.	0.34	9.3	463.8	3.16		18.5
SEQ#13 4 SPD IDLE (NEUT)	9.2	0.00		65.8		
SEQ#13 4 SPD IDLE (2500)	36.5	1.46		111.6		
SEQ#13 4 SPD IDLE (NEUT)	7.5	0.01		70.6		
SEQ#13 4 SPD IDLE (DRIV)	77.1	0.29		92.6		
SEQ#13 FED 2 MODE (30)	100.5	1.84		122.1		
SEQ#13 FED 2 MODE (NEUT)	20.7	0.01		61.6		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6450	76	CHEV	350	10J2 (CON'T)						

COMMENT : ADJUSTED IDLE MIXTURE AND IDLE SPEED TO MANUFACTURERS SPEC.50 RPM LEAN DROP IN D.IDLE RPM 600 D.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	1.50	34.0	663.8	2.20		12.3
SEQ#15 50 MPH CRUISE	7.5	0.01		681.4		
SEQ#15 HIGHWAY FUEL ECON.	0.32	9.8	470.2	3.02		18.2
SEQ#15 4 SPD IDLE (NEUT)	25.0	0.00		49.9		
SEQ#15 4 SPD IDLE (2500)	24.3	1.05		107.7		
SEQ#15 4 SPD IDLE (NEUT)	5.6	0.00		66.2		
SEQ#15 4 SPD IDLE (DRIV)	5.9	0.00		169.6		
SEQ#15 FED 2 MODE (30)	85.0	1.17		131.6		
SEQ#15 FED 2 MODE (NEUT)	30.6	0.01		53.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : REPLACED SPARK PLUGS, AIR, FUEL, CRANKCASE BREATHER, OIL, & CARBON CANISTER FILTERS, PCV VALVE, AND ENGINE OIL. TIGHTENED CARB. THROTTLE BODY SCREWS & FUEL LINE CONNECTION. ADJUSTED CHOKE, IDLE MIXTURE & RPM TO MANUF. SPECS.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	1.02	21.1	654.2	2.05		12.9
SEQ#16 50 MPH CRUISE	3.6	0.00		701.6		
SEQ#16 HIGHWAY FUEL ECON.	0.14	3.9	468.4	3.15		18.7
SEQ#16 4 SPD IDLE (NEUT)	28.9	0.00		56.8		
SEQ#16 4 SPD IDLE (2500)	22.0	1.03		129.6		
SEQ#16 4 SPD IDLE (NEUT)	24.6	0.00		73.7		
SEQ#16 4 SPD IDLE (DRIV)	8.5	0.00		212.4		
SEQ#16 FED 2 MODE (30)	62.5	0.90		166.0		
SEQ#16 FED 2 MODE (NEUT)	44.4	0.00		55.0		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 43 CO: 0.70 GAIN: 175

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
6452	76	CHEV	400	10K4J

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 147 CO: 3.00 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	1.60	34.7	698.7	5.51		11.7
SEQ#11 50 MPH CRUISE	3.3	0.01		1122.2		
SEQ#11 HIGHWAY FUEL ECON.	0.18	1.3	543.6	6.18		16.3
SEQ#11 4 SPD IDLE (NEUT)	131.4	1.45		45.2		
SEQ#11 4 SPD IDLE (2500)	3.3	0.01		204.2		
SEQ#11 4 SPD IDLE (NEUT)	116.8	1.59		47.3		
SEQ#11 4 SPD IDLE (DRIV)	142.4	1.40		79.3		
SEQ#11 FED 2 MODE (30)	8.2	0.01		739.0		
SEQ#11 FED 2 MODE (NEUT)	155.3	1.88		50.2		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                     EMISSION RESULTS                FUEL
VEH.                                       --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC     CO      CO2     NOxc     CH4     MPG
----   -- ---- ---  -----------------     -----  -----   ------   -----    ----    ----
6452   76 CHEV 400  10K4J     (CON'T)

            COMMENT : IDLE RPM WITHOUT PROPANE 730 RPM, WITH PROPANE
                      790 RPM.

            SEQ#12 FEDERAL TEST PROC.      1.10   21.1    708.9    5.95             11.9
            SEQ#12 50 MPH CRUISE           0.0    0.01          1305.1
            SEQ#12 HIGHWAY FUEL ECON.      0.09    0.5    552.1    6.92             16.0
            SEQ#12 4 SPD IDLE (NEUT)      25.3    0.01             55.6
            SEQ#12 4 SPD IDLE (2500)       0.0    0.01            211.4
            SEQ#12 4 SPD IDLE (NEUT)      14.1    0.01             60.2
            SEQ#12 4 SPD IDLE (DRIV)      21.3    0.01            114.4
            SEQ#12 FED 2 MODE (30)        12.8    0.01            876.5
            SEQ#12 FED 2 MODE (NEUT)     105.2    0.18             53.4

            NO FOLLOW UP LANE TEST DONE


            COMMENT : ADJUSTED TIMING, CURB IDLE RPM TO SPEC.  ADJUSTED
                      IDLE MIXTURE.

            SEQ#15 FEDERAL TEST PROC.      0.85   19.2    699.1    8.35             12.1
            SEQ#15 50 MPH CRUISE          10.5    0.00          1720.9
            SEQ#15 HIGHWAY FUEL ECON.      0.07    0.5    547.9    9.36             16.2
            SEQ#15 4 SPD IDLE (NEUT)      67.5    0.01             43.9
            SEQ#15 4 SPD IDLE (2500)       1.0    0.01            228.3
            SEQ#15 4 SPD IDLE (NEUT)      27.6    0.00             51.3
            SEQ#15 4 SPD IDLE (DRIV)      37.1    0.00            121.6
            SEQ#15 FED 2 MODE (30)        12.5    0.01           1042.1
            SEQ#15 FED 2 MODE (NEUT)      51.6    0.00             61.3

            NO FOLLOW UP LANE TEST DONE


            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                      FUEL FILTER, PCV VALVE, CRANKCASE BREATHER FILTER,
                      ENGINE OIL AND FILTER, EGR VALVE, FRESH AIR
                      INTAKE TUBE, OIL FILTER CAPS, ADJUSTED CHOKE IDLE
                      SPEED & MIXTURE.

            SEQ#16 FEDERAL TEST PROC.      0.60    4.3    712.5    4.30             12.3
            SEQ#16 50 MPH CRUISE           3.6    0.00            801.6
            SEQ#16 HIGHWAY FUEL ECON.      0.08    0.3    546.1    5.46             16.2
            SEQ#16 4 SPD IDLE (NEUT)      82.0    0.00             33.2
            SEQ#16 4 SPD IDLE (2500)       5.9    0.00            143.2
            SEQ#16 4 SPD IDLE (NEUT)      59.9    0.00             34.1
            SEQ#16 4 SPD IDLE (DRIV)      37.1    0.00             63.4
            SEQ#16 FED 2 MODE (30)        17.1    0.00            343.7
            SEQ#16 FED 2 MODE (NEUT)      90.3    0.00             35.3

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    35  CO:   0.01    GAIN: 218
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                  EMISSION RESULTS                     FUEL
VEH.                                   ---------- GRAMS / MILE ----------              ECON
 NO.  YR MAKE CID   ENGINE FAMILY        HC      CO      CO2      NOxc     CH4     MPG
----  -- ---- ---  ----------------    -----   -----   ------    -----    ----    ----
6453  76 OLDS 260  30H2J

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  539   CO:  8.91   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     2.29    46.5    564.1     2.68             13.8
          SEQ#11 50 MPH CRUISE         13.8     0.01            1004.5
          SEQ#11 HIGHWAY FUEL ECON.     0.39     3.9    441.0     3.54             19.8
          SEQ#11 4 SPD IDLE (NEUT)    459.3     5.75              34.4
          SEQ#11 4 SPD IDLE (2500)     48.7     0.02             234.5
          SEQ#11 4 SPD IDLE (NEUT)    454.9     6.04              40.5
          SEQ#11 4 SPD IDLE (DRIV)    346.2     6.85              53.7
          SEQ#11 FED 2 MODE (30)       36.8     0.01             726.9
          SEQ#11 FED 2 MODE (NEUT)    414.8     5.79              50.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE DRIVE 550 RPM, PROPANE GAIN 50 RPM NEUTRAL.

          SEQ#12 FEDERAL TEST PROC.     1.49    18.1    590.2     2.74             14.2
          SEQ#12 50 MPH CRUISE         13.5     0.01             934.3
          SEQ#12 HIGHWAY FUEL ECON.     0.26     2.6    444.9     3.53             19.7
          SEQ#12 4 SPD IDLE (NEUT)      6.6     0.01              56.0
          SEQ#12 4 SPD IDLE (2500)     20.7     0.01             284.1
          SEQ#12 4 SPD IDLE (NEUT)     68.5     0.03              12.5
          SEQ#12 4 SPD IDLE (DRIV)    160.3     0.20              77.0
          SEQ#12 FED 2 MODE (30)       27.6     0.01             906.8
          SEQ#12 FED 2 MODE (NEUT)    241.3     0.19              41.3

          NO FOLLOW UP LANE TEST DONE

          COMMENT : IDLE DRIVE 550 RPM, IDLE CO .35%.

          SEQ#13 FEDERAL TEST PROC.     1.15    14.8    565.2     2.70             15.0
          SEQ#13 50 MPH CRUISE         16.7     0.01             916.8
          SEQ#13 HIGHWAY FUEL ECON.     0.20     2.4    438.7     3.78             20.0
          SEQ#13 4 SPD IDLE (NEUT)      3.3     0.00              86.4
          SEQ#13 4 SPD IDLE (2500)     11.5     0.00             296.2
          SEQ#13 4 SPD IDLE (NEUT)      6.9     0.00              78.3
          SEQ#13 4 SPD IDLE (DRIV)      0.7     0.00             267.9
          SEQ#13 FED 2 MODE (30)       26.3     0.01             894.3
          SEQ#13 FED 2 MODE (NEUT)     28.6     0.01              87.5

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                              LISTING OF TEST RESULTS
                                    HOUSTON #2

                                                    EMISSION RESULTS                FUEL
 VEH.                                     ---------- GRAMS / MILE ----------        ECON
 NO.   YR MAKE CID    ENGINE FAMILY       HC      CO     CO2     NOxc    CH4      MPG
 ----  -- ---- ---  ------------------  -----   -----  ------   -----   ---      ---
 6453  76 OLDS 260  30H2J    (CON'T)

          COMMENT : IDLE SPEED AND MIXTURE SET TO SPEC.

          SEQ#15 FEDERAL TEST PROC.     0.77     9.9   582.7    2.71              14.8
          SEQ#15 50 MPH CRUISE          12.1    0.01          894.3
          SEQ#15 HIGHWAY FUEL ECON.     0.18     2.1   453.2    3.73              19.4
          SEQ#15 4 SPD IDLE (NEUT)      28.6    0.01           94.7
          SEQ#15 4 SPD IDLE (2500)      22.3    0.01          259.8
          SEQ#15 4 SPD IDLE (NEUT)      57.9    0.01           71.8
          SEQ#15 4 SPD IDLE (DRIV)      12.8    0.01          201.1
          SEQ#15 FED 2 MODE (30)        19.0    0.01          799.6
          SEQ#15 FED 2 MODE (NEUT)      83.0    0.01           78.9

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    37  CO:   0.02   GAIN: 100

 6454  76 OLDS 350 30J4

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:   147  CO:   4.60   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     1.53    37.0   669.0    3.79              12.1
          SEQ#11 50 MPH CRUISE           6.6    0.01          741.0
          SEQ#11 HIGHWAY FUEL ECON.     0.16     1.7   509.8    3.78              17.3
          SEQ#11 4 SPD IDLE (NEUT)     189.4    3.87           33.6
          SEQ#11 4 SPD IDLE (2500)       2.3    0.01          212.7
          SEQ#11 4 SPD IDLE (NEUT)     157.3    3.75           42.0
          SEQ#11 4 SPD IDLE (DRIV)     175.7    3.91           46.7
          SEQ#11 FED 2 MODE (30)         8.5    0.01          519.6
          SEQ#11 FED 2 MODE (NEUT)     168.3    4.00           47.2

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 600 RPM, 60 RPM PROPANE GAIN.

          SEQ#12 FEDERAL TEST PROC.     1.57     7.6   634.8    2.42              13.6
          SEQ#12 50 MPH CRUISE           8.9    0.01          495.4
          SEQ#12 HIGHWAY FUEL ECON.     0.16     0.3   462.6    2.47              19.1
          SEQ#12 4 SPD IDLE (NEUT)     119.1    0.00           14.8
          SEQ#12 4 SPD IDLE (2500)      31.5    0.01          157.5
          SEQ#12 4 SPD IDLE (NEUT)     158.7    0.00           12.1
          SEQ#12 4 SPD IDLE (DRIV)     132.7    0.00           33.9
          SEQ#12 FED 2 MODE (30)        50.6    0.00          193.4
          SEQ#12 FED 2 MODE (NEUT)     308.6    0.00           10.3

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                       AUTOMOTIVE TESTING LABORATORIES,INC.

                              TEXAS PILOT I/M STUDY


                               LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                     EMISSION RESULTS                   FUEL
 VEH.                                         ---------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID     ENGINE FAMILY          HC      CO      CO2     NOxc    CH4      MPG
 ----  -- ---- ---  ------------------      -----   -----   ------   -----   ---      ----
 6454  76 OLDS 350  30J4      (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 550 RPM, CO .4%, HC 900 PPM.
                    USED UNIVERSAL CO METHOD.

          SEQ#13 FEDERAL TEST PROC.       2.13    22.4    665.5    1.70              12.5
          SEQ#13 50 MPH CRUISE           22.7     0.01           316.4
          SEQ#13 HIGHWAY FUEL ECON.       0.22     1.0    513.7    2.04              17.2
          SEQ#13 4 SPD IDLE (NEUT)      773.1     0.37            34.2
          SEQ#13 4 SPD IDLE (2500)       38.5     0.00           135.2
          SEQ#13 4 SPD IDLE (NEUT)      383.4     1.17            37.6
          SEQ#13 4 SPD IDLE (DRIV)      278.1     1.25            49.3
          SEQ#13 FED 2 MODE (30)         42.7     0.00           140.3
          SEQ#13 FED 2 MODE (NEUT)      426.9     2.32            35.1

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE MIXTURE & SPEED TO SPEC.

          SEQ#15 FEDERAL TEST PROC.       0.78     7.6    664.4    1.67              13.1
          SEQ#15 50 MPH CRUISE            7.2     0.01           297.2
          SEQ#15 HIGHWAY FUEL ECON.       0.11     0.8    502.9    1.83              17.6
          SEQ#15 4 SPD IDLE (NEUT)       50.6     0.00            46.0
          SEQ#15 4 SPD IDLE (2500)       15.1     0.01           135.7
          SEQ#15 4 SPD IDLE (NEUT)       48.0     0.00            52.4
          SEQ#15 4 SPD IDLE (DRIV)       35.8     0.00            74.9
          SEQ#15 FED 2 MODE (30)         33.2     0.01           132.4
          SEQ#15 FED 2 MODE (NEUT)      109.8     0.00            50.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE,
                    FUEL FILTER, AIR FILTER ELEMENT, OIL & OIL FILTER,
                     CANISTER FILTER.

          SEQ#16 FEDERAL TEST PROC.       0.74     6.9    686.1    1.72              12.7
          SEQ#16 50 MPH CRUISE            5.9     0.00           275.0
          SEQ#16 HIGHWAY FUEL ECON.       0.12     1.0    535.6    2.55              16.5
          SEQ#16 4 SPD IDLE (NEUT)       82.0     0.00            43.4
          SEQ#16 4 SPD IDLE (2500)        9.5     0.00           133.4
          SEQ#16 4 SPD IDLE (NEUT)       74.1     0.00            56.0
          SEQ#16 4 SPD IDLE (DRIV)       31.5     0.00           103.6
          SEQ#16 FED 2 MODE (30)         28.9     0.00           130.3
          SEQ#16 FED 2 MODE (NEUT)      127.4     0.00            51.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  210  CO:  0.25   GAIN:  92



 [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                    AUTOMOTIVE TESTING LABORATORIES,INC.
                           TEXAS PILOT I/M STUDY

                          LISTING OF TEST RESULTS
                                HOUSTON #2
                                                    EMISSION RESULTS                FUEL
VEH.                                      --------- GRAMS / MILE ----------         ECON
 NO.   YR MAKE CID     ENGINE FAMILY        HC      CO      CO2      NOxc    CH4     MPG
----   -- ---- ---  -----------------     -----   -----   ------    -----   ----    ----
6457   76 OLDS 455  30S4

          PRELIMINARY LANE TEST:
          CAT: F     FUEL: F
          HC:  302   CO:   7.28    GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     4.04    81.9    620.6     7.15            11.6
          SEQ#11 50 MPH CRUISE          61.5    0.43            2692.0
          SEQ#11 HIGHWAY FUEL ECON.     1.86    23.2    454.5     8.47            17.9
          SEQ#11 4 SPD IDLE (NEUT)     292.4    5.70              43.7
          SEQ#11 4 SPD IDLE (2500)    2375.4    0.25            2036.5
          SEQ#11 4 SPD IDLE (NEUT)     497.3    6.04              57.4
          SEQ#11 4 SPD IDLE (DRIV)     359.5    6.47              53.6
          SEQ#11 FED 2 MODE (30)       144.0    1.30            1144.7
          SEQ#11 FED 2 MODE (NEUT)     261.8    6.22              48.4

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.     3.14    33.1    661.5     7.75            12.3
          SEQ#12 50 MPH CRUISE          53.9    0.58            2721.6
          SEQ#12 HIGHWAY FUEL ECON.     1.60    22.0    474.4     9.09            17.3
          SEQ#12 4 SPD IDLE (NEUT)    1137.2    0.29              53.8
          SEQ#12 4 SPD IDLE (2500)      48.7    0.44             396.3
          SEQ#12 4 SPD IDLE (NEUT)     843.6    0.33              64.7
          SEQ#12 4 SPD IDLE (DRIV)     248.0    0.19             148.8
          SEQ#12 FED 2 MODE (30)       100.5    0.82            1222.4
          SEQ#12 FED 2 MODE (NEUT)     850.5    0.36              62.2

          FOLLOW UP LANE TEST:
          CAT: F     FUEL: F
          HC:  867   CO:   0.62    GAIN: 110

          COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .5%, HC 700 PPM.
                    USED UNIVERSAL CO METHOD.

          SEQ#13 FEDERAL TEST PROC.     3.00    22.9    687.5     8.46            12.1
          SEQ#13 50 MPH CRUISE          48.3    0.32            2820.2
          SEQ#13 HIGHWAY FUEL ECON.     1.43    12.6    493.6    10.70            17.1
          SEQ#13 4 SPD IDLE (NEUT)    1103.9    0.26              33.1
          SEQ#13 4 SPD IDLE (2500)      58.9    0.36             374.0
          SEQ#13 4 SPD IDLE (NEUT)     746.7    0.29              50.4
          SEQ#13 4 SPD IDLE (DRIV)     186.0    0.13             153.9
          SEQ#13 FED 2 MODE (30)        82.7    0.14            1477.9
          SEQ#13 FED 2 MODE (NEUT)     628.1    0.45              63.2

          NO FOLLOW UP LANE TEST DONE




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
6457	76	OLDS	455	30S4 (CON'T)

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .2%, HC 470 PPM, PROPANE GAIN 80 RPM.

	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	3.18	28.1	672.0	8.14		12.2
SEQ#15 50 MPH CRUISE	51.3	0.30		2899.1		
SEQ#15 HIGHWAY FUEL ECON.	7.67	19.7	480.3	9.55		16.6
SEQ#15 4 SPD IDLE (NEUT)	21.3	0.18		67.7		
SEQ#15 4 SPD IDLE (2500)	136.1	0.29		404.4		
SEQ#15 4 SPD IDLE (NEUT)	712.4	0.26		52.1		
SEQ#15 4 SPD IDLE (DRIV)	226.5	0.13		133.4		
SEQ#15 FED 2 MODE (30)	88.0	0.12		1460.4		
SEQ#15 FED 2 MODE (NEUT)	519.7	1.19		67.2		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED AIR, OIL AND FUEL FILTERS, SPARK PLUGS, PCV VALVE, ENGINE OIL. RESET TIMING AND IDLE MIXTURE. CHOKE SECONDARY VACUUM BREAK ADJUSTED, REPLACED COLD AIR DUCT.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	2.68	12.6	680.3	8.75		12.5
SEQ#16 50 MPH CRUISE	44.4	0.22		2672.3		
SEQ#16 HIGHWAY FUEL ECON.	1.33	7.8	467.1	9.66		18.4
SEQ#16 4 SPD IDLE (NEUT)	990.6	0.25		20.6		
SEQ#16 4 SPD IDLE (2500)	46.4	0.18		367.0		
SEQ#16 4 SPD IDLE (NEUT)	501.8	0.30		67.2		
SEQ#16 4 SPD IDLE (DRIV)	178.0	0.12		183.4		
SEQ#16 FED 2 MODE (30)	82.7	0.45		1202.4		
SEQ#16 FED 2 MODE (NEUT)	705.5	0.28		31.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : REPLACED CATALYTIC CONVERTER.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#17 FEDERAL TEST PROC.	0.69	3.3	701.5	7.12		12.5
SEQ#17 50 MPH CRUISE	17.7	0.02		2770.9		
SEQ#17 HIGHWAY FUEL ECON.	0.22	0.9	491.1	8.22		18.0
SEQ#17 4 SPD IDLE (NEUT)	377.1	0.01		26.5		
SEQ#17 4 SPD IDLE (2500)	10.2	0.02		387.2		
SEQ#17 4 SPD IDLE (NEUT)	421.5	0.01		37.5		
SEQ#17 4 SPD IDLE (DRIV)	119.8	0.01		104.2		
SEQ#17 FED 2 MODE (30)	34.8	0.02		1465.4		
SEQ#17 FED 2 MODE (NEUT)	249.7	0.03		80.9		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 186 CO: 0.03 GAIN: 150

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6461	76	PONT	400	2004						
				PRELIMINARY LANE TEST: CAT: P FUEL: P HC: 205 CO: 3.41 GAIN: 0						
				SEQ#11 FEDERAL TEST PROC.	2.33	26.1	645.3	2.37		12.8
				SEQ#11 50 MPH CRUISE	9.5	0.03		534.8		
				SEQ#11 HIGHWAY FUEL ECON.	0.39	1.5	495.3	3.36		17.8
				SEQ#11 4 SPD IDLE (NEUT)	344.5	1.66		38.3		
				SEQ#11 4 SPD IDLE (2500)	16.1	0.03		185.2		
				SEQ#11 4 SPD IDLE (NEUT)	269.6	1.70		44.9		
				SEQ#11 4 SPD IDLE (DRIV)	198.4	1.98		55.0		
				SEQ#11 FED 2 MODE (30)	21.0	0.01		373.0		
				SEQ#11 FED 2 MODE (NEUT)	383.4	0.77		48.7		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 271 CO: 3.07 GAIN: 9						
				COMMENT : ADJUSTED IDLE DRIVE 575 RPM, PROPANE GAIN 50 RPM.						
				SEQ#12 FEDERAL TEST PROC.	2.72	24.2	679.6	2.75		12.2
				SEQ#12 50 MPH CRUISE	6.2	0.03		635.9		
				SEQ#12 HIGHWAY FUEL ECON.	0.40	1.5	506.1	3.86		17.4
				SEQ#12 4 SPD IDLE (NEUT)	368.2	1.37		32.5		
				SEQ#12 4 SPD IDLE (2500)	11.2	0.03		186.3		
				SEQ#12 4 SPD IDLE (NEUT)	290.9	1.61		39.3		
				SEQ#12 4 SPD IDLE (DRIV)	193.0	1.66		46.9		
				SEQ#12 FED 2 MODE (30)	18.7	0.02		382.1		
				SEQ#12 FED 2 MODE (NEUT)	453.2	0.09		32.3		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED TIMING TO SPEC. IDLE CO .5%, HC 200 PPM, IDLE DRIVE 575 RPM.						
				SEQ#14 FEDERAL TEST PROC.	2.68	29.3	633.9	3.39		12.9
				SEQ#14 50 MPH CRUISE	9.5	0.03		944.4		
				SEQ#14 HIGHWAY FUEL ECON.	0.59	2.0	490.5	4.73		17.9
				SEQ#14 4 SPD IDLE (NEUT)	555.0	2.66		26.0		
				SEQ#14 4 SPD IDLE (2500)	14.8	0.05		210.9		
				SEQ#14 4 SPD IDLE (NEUT)	517.2	2.13		34.0		
				SEQ#14 4 SPD IDLE (DRIV)	301.5	3.28		36.5		
				SEQ#14 FED 2 MODE (30)	29.2	0.02		404.4		
				SEQ#14 FED 2 MODE (NEUT)	894.3	0.46		41.8		
				NO FOLLOW UP LANE TEST DONE						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                        EMISSION RESULTS                      FUEL
VEH.                                        ---------- GRAMS / MILE -----------               ECON
 NO.   YR MAKE CID     ENGINE FAMILY          HC       CO       CO2      NOxc      CH4        MPG
----   -- ---- --- ------------------      -----    -----    ------    -----     ----       ----
6461   76 PONT 400 2004      (CON'T)

              COMMENT : ADJUSTED IDLE DRIVE 575 RPM, CO .2%, HC 800 PPM.

              SEQ#15 FEDERAL TEST PROC.      2.89     24.0    666.0      3.20                12.5
              SFQ#15 50 MPH CRUISE           7.5      0.03             715.7
              SEQ#15 HIGHWAY FUEL ECON.      0.46      0.7    477.2      4.50                18.5
              SEQ#15 4 SPD IDLE (NEUT)     882.6      0.02              46.0
              SEQ#15 4 SPD IDLE (2500)      17.4      0.02             195.0
              SEQ#15 4 SPD IDLE (NEUT)     658.6      0.02              49.6
              SEQ#15 4 SPD IDLE (DRIV)     470.8      0.01              84.7
              SEQ#15 FED 2 MODE (30)        25.6      0.02             437.7
              SEQ#15 FED 2 MODE (NEUT)     724.8      0.02              50.7

              NO FOLLOW UP LANE TEST DONE


              COMMENT : MAJOR TUNE-UP. REPLACED DISTRIBUTOR CAP, ROTOR,
                        POLE PEICE & PLATE ASSEMBLY, IGNITION MODUEL &
                        COIL, SPARK PLUGS, FUEL FILTER, PCV VALVE,
                        CARNKCASE BREATHER FILTER, AIR FILTER, CARBON
                        CANISTER FILTER. ADJUSTED CHOKE, IDLE MIXTURE &
                        SPEED.

              SEQ#16 FEDERAL TEST PROC.      2.10     18.6    610.8      2.78                13.7
              SEQ#16 50 MPH CRUISE          10.8      0.03             800.7
              SEQ#16 HIGHWAY FUEL ECON.      0.43      1.6    462.2      4.32                19.0
              SEQ#16 4 SPD IDLE (NEUT)     854.4      0.47              38.1
              SEQ#16 4 SPD IDLE (2500)      18.4      0.03             216.3
              SEQ#16 4 SPD IDLE (NEUT)     733.9      0.30              41.1
              SEQ#16 4 SPD IDLE (DRIV)     394.2      1.20              57.5
              SEQ#16 FED 2 MODE (30)        31.5      0.02             620.7
              SEQ#16 FED 2 MODE (NEUT)     828.8      0.15              38.8

              FOLLOW UP LANE TEST:
              CAT: P    FUEL: P
              HC:  677  CO:  1.20   GAIN:  11

6462   76 PONT 400 2004

              PRELIMINARY LANE TEST:
              CAT: P    FUEL: P
              HC:  573  CO:  7.20   GAIN:   0

              SEQ#11 FEDERAL TEST PROC.      4.01     52.0    632.1      2.18                12.2
              SEQ#11 50 MPH CRUISE          15.8      0.11             286.1
              SEQ#11 HIGHWAY FUEL ECON.      0.84      9.0    500.6      2.12                17.2
              SEQ#11 4 SPD IDLE (NEUT)     640.5      5.33              12.8
              SEQ#11 4 SPD IDLE (2500)      32.9      0.46             117.8
              SEQ#11 4 SPD IDLE (NEUT)     564.0      8.96              16.6
              SEQ#11 4 SPD IDLE (DRIV)     431.3      9.12              16.9
              SEQ#11 FED 2 MODE (30)        98.6      0.41             430.7
              SEQ#11 FED 2 MODE (NEUT)     530.5      4.91              20.9

              NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6462	76	PONT	400	2004 (CON'T)						

COMMENT : IDLE NEUTRAL 720 RPM, PROPANE ENRICHED IDLE SPEED 780 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	1.61	11.1	710.2	2.56		12.1
SEQ#12 50 MPH CRUISE	10.2	0.00		470.1		
SEQ#12 HIGHWAY FUEL ECON.	0.36	2.7	526.8	2.45		16.7
SEQ#12 4 SPD IDLE (NEUT)	376.9	0.54		33.2		
SEQ#12 4 SPD IDLE (2500)	17.4	0.01		131.3		
SEQ#12 4 SPD IDLE (NEUT)	239.9	0.12		41.8		
SEQ#12 4 SPD IDLE (DRIV)	30.6	0.00		70.1		
SEQ#12 FED 2 MODE (30)	35.8	0.09		334.6		
SEQ#12 FED 2 MODE (NEUT)	301.5	0.06		33.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE CO TO .45%, HC 200 PPM, IDLE SPEED 690 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	2.58	32.0	671.5	2.45		12.2
SEQ#13 50 MPH CRUISE	13.1	0.04		375.1		
SEQ#13 HIGHWAY FUEL ECON.	0.71	7.6	507.2	2.30		17.0
SEQ#13 4 SPD IDLE (NEUT)	389.9	1.72		23.8		
SFQ#13 4 SPD IDLE (2500)	28.9	0.19		112.6		
SEQ#13 4 SPD IDLE (NEUT)	325.1	2.17		31.1		
SEQ#13 4 SPD IDLE (DRIV)	249.7	1.96		36.4		
SEQ#13 FED 2 MODE (30)	56.9	0.14		358.9		
SEQ#13 FED 2 MODE (NEUT)	389.9	1.69		32.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	2.53	28.2	677.4	2.37		12.2
SEQ#15 50 MPH CRUISE	8.2	0.02		406.4		
SEQ#15 HIGHWAY FUEL ECON.	0.54	5.4	512.1	2.21		17.0
SEQ#15 4 SPD IDLE (NEUT)	413.8	1.38		27.1		
SEQ#15 4 SPD IDLE (2500)	14.1	0.24		128.3		
SEQ#15 4 SPD IDLE (NEUT)	295.1	1.77		34.3		
SEQ#15 4 SPD IDLE (DRIV)	217.8	1.70		41.8		
SEQ#15 FED 2 MODE (30)	66.5	0.20		447.8		
SEQ#15 FED 2 MODE (NEUT)	488.4	0.36		36.4		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                 FUEL
                                         --------- GRAMS / MILE -----------         ECON
VEH.
 NO.  YR MAKE CID   ENGINE FAMILY           HC      CO      CO2     NOxc    CH4     MPG
----  -- ---- --- ------------------     -----   -----   ------   -----   ---     ---
6462  76 PONT 400 2004    (CON'T)

         COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                   CRANKCASE, OIL FILTER AND OIL.  ADJUSTED TIMING,
                   IDLE MIXTURE, IDLE SPEED, SECONDARYVACUUM BREAK
                   AND FAST IDLE.

         SEQ#16 FEDERAL TEST PROC.     1.78    16.1    633.0    2.74            13.4
         SEQ#16 50 MPH CRUISE           4.3     0.01           513.6
         SFQ#16 HIGHWAY FUEL ECON.     0.26     1.2    505.2    2.76            17.5
         SEQ#16 4 SPD IDLE (NEUT)     420.4     0.15            34.2
         SEQ#16 4 SPD IDLE (2500)       9.2     0.04           112.9
         SEQ#16 4 SPD IDLE (NEUT)     346.6     0.99            40.9
         SEQ#16 4 SPD IDLE (DRIV)     221.1     0.63            59.9
         SEQ#16 FED 2 MODE (30)        25.3     0.01           583.3
         SEQ#16 FED 2 MODE (NEUT)     506.1     0.19            38.2

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  444  CO:  0.04   GAIN:  67

6463  76 HOND 076 76EB

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:   27  CO:  0.95   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.     1.10    23.5    319.4    1.60            24.7
         SEQ#11 50 MPH CRUISE          29.6     0.84           989.4
         SEQ#11 HIGHWAY FUEL ECON.     0.42    13.5    242.6    2.70            33.5
         SEQ#11 4 SPD IDLE (NEUT)       8.9     0.38            45.2
         SEQ#11 4 SPD IDLE (2500)      16.1     0.79            43.9
         SEQ#11 4 SPD IDLE (NEUT)       6.9     0.50            40.3
         SEQ#11 FED 2 MODE (30)        42.1     1.30           434.7
         SEQ#11 FED 2 MODE (NEUT)      12.1     0.47            44.4

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE NEUTRAL 800 RPM, PROPANE GAIN 160
                   RPM.

         SEQ#12 FEDERAL TEST PROC.     2.60    22.2    288.1    1.73            26.8
         SEQ#12 50 MPH CRUISE          41.1     0.92           856.7
         SFQ#12 HIGHWAY FUEL ECON.     0.58    12.1    236.8    2.74            34.5
         SEQ#12 4 SPD IDLE (NEUT)     515.0     0.09            33.9
         SEQ#12 4 SPD IDLE (2500)      50.3     0.77            41.9
         SEQ#12 4 SPD IDLE (NEUT)     451.0     0.10            40.3
         SEQ#12 FED 2 MODE (30)        54.6     1.35           490.3
         SEQ#12 FED 2 MODE (NEUT)     437.9     0.10            41.3

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   83  CO:  0.11   GAIN: 210
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                   FUEL
VEH.                                        --------- GRAMS / MILE ---------             ECON
 NO.   YR MAKE CID     ENGINE FAMILY          HC       CO      CO2     NOxc     CH4      MPG
----   -- ---- ---  ------------------     -----    -----   ------   -----    ----     ----
6463   76 HOND 076  76EB     (CON'T)

             COMMENT : ADJUSTED IDLE NEUTRAL 800 RPM.

             SEQ#15 FEDERAL TEST PROC.      2.12     27.6    286.5    1.47              26.4
             SEQ#15 50 MPH CRUISE           28.9     0.87           763.3
             SEQ#15 HIGHWAY FUEL ECON.      0.48     11.9    219.9    2.22              37.0
             SEQ#15 4 SPD IDLE (NEUT)       94.6     0.38            40.7
             SEQ#15 4 SPD IDLE (2500)       31.2     1.21            33.4
             SEQ#15 4 SPD IDLE (NEUT)       80.0     0.61            41.7
             SEQ#15 FED 2 MODE (30)         44.1     1.23           489.3
             SEQ#15 FED 2 MODE (NEUT)       94.9     0.32            48.5

             NO FOLLOW UP LANE TEST DONE

             COMMENT : MAJOR TUNE-UP.  REPLACED IGNITION POINTS,
                       DISTRIBUTOR CAP, ROTOR, AIR FILTER, FUEL FILTER,
                       ENGINE OIL AND FILTER, ADJUSTED DWELL, TIMING,
                       IDLE SPEED AND MIXTURE.

             SEQ#16 FEDERAL TEST PROC.      2.58     27.9    271.4    1.83              27.4
             SEQ#16 50 MPH CRUISE           31.2     0.77           936.8
             SEQ#16 HIGHWAY FUEL ECON.      0.59     12.5    226.0    2.83              35.9
             SEQ#16 4 SPD IDLE (NEUT)      572.9     0.18            54.4
             SEQ#16 4 SPD IDLE (2500)       46.4     1.18            34.5
             SEQ#16 4 SPD IDLE (NEUT)      387.7     0.18            41.8
             SEQ#16 FED 2 MODE (30)         54.3     1.18           611.6
             SEQ#16 FED 2 MODE (NEUT)      437.9     0.14            46.8

             FOLLOW UP LANE TEST:
             CAT: P     FUEL: P
             HC:  131   CO:   1.10    GAIN:  51

6464   76 DATS 085  N-081

             PRELIMINARY LANE TEST:
             CAT: P     FUEL: P
             HC:  157   CO:   1.10    GAIN:   0

             SEQ#11 FEDERAL TEST PROC.      1.84     10.4    318.0    4.94              26.1
             SEQ#11 50 MPH CRUISE          100.9     0.12          2504.7
             SEQ#11 HIGHWAY FUEL ECON.      0.98      2.3    245.3    6.32              35.2
             SEQ#11 4 SPD IDLE (NEUT)       77.4     0.37            21.7
             SEQ#11 4 SPD IDLE (2500)       36.5     0.11           169.8
             SEQ#11 4 SPD IDLE (NEUT)       77.4     0.38            23.5
             SEQ#11 FED 2 MODE (30)         95.2     0.08          1986.4
             SEQ#11 FED 2 MODE (NEUT)       63.8     0.39            35.8

             NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                                     EMISSION RESULTS                  FUEL
VEH.                                      ---------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc     CH4       MPG
----  -- ---- --- -----------------      -----   -----   ------   -----   -----      ---
6464  76 DATS 085 N-081     (CON'T)

          COMMENT : ADJUSTED IDLE NEUTRAL 700 RPM, PROPANE GAIN 40
                    RPM.

          SEQ#12 FEDERAL TEST PROC.       1.86     7.9   322.5    5.45              26.0
          SEQ#12 50 MPH CRUISE            90.6    0.12          2751.2
          SEQ#12 HIGHWAY FUEL ECON.       0.99     2.1   244.2    6.63              35.4
          SEQ#12 4 SPD IDLE (NEUT)       202.7    0.09            30.4
          SEQ#12 4 SPD IDLE (2500)        42.4    0.11           189.3
          SEQ#12 4 SPD IDLE (NEUT)       270.2    0.10            34.2
          SEQ#12 FED 2 MODE (30)         115.5    0.09          2297.6
          SEQ#12 FED 2 MODE (NEUT)       150.7    0.10            53.8

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE NEUTRAL 700 RPM, CO 2%, HC 100 PPM.

          SEQ#15 FEDERAL TEST PROC.       1.58    10.3   325.1    5.27              25.6
          SEQ#15 50 MPH CRUISE            98.9    0.16          2770.9
          SEQ#15 HIGHWAY FUEL ECON.       0.95     2.6   239.3    6.35              36.0
          SEQ#15 4 SPD IDLE (NEUT)        42.7    1.14            23.8
          SEQ#15 4 SPD IDLE (2500)        41.1    0.21           171.9
          SEQ#15 4 SPD IDLE (NEUT)        50.6    1.17            25.3
          SEQ#15 FED 2 MODE (30)         119.8    0.11          2366.6
          SEQ#15 FED 2 MODE (NEUT)        39.1    1.03            41.6

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                    PCV FILTER, OIL AND OIL FILTER.

          SEQ#16 FEDERAL TEST PROC.       1.66     7.3   316.0    5.09              26.7
          SEQ#16 50 MPH CRUISE            88.3    0.16          2221.9
          SEQ#16 HIGHWAY FUEL ECON.       0.97     2.8   237.4    6.24              36.2
          SEQ#16 4 SPD IDLE (NEUT)        71.8    0.10            29.2
          SEQ#16 4 SPD IDLE (2500)        29.2    0.18           143.7
          SEQ#16 4 SPD IDLE (NEUT)        69.1    0.10            30.8
          SEQ#16 FED 2 MODE (30)          98.2    0.10          1893.7
          SEQ#16 FED 2 MODE (NEUT)        59.9    0.10            50.6

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:    88  CO:  0.16   GAIN:   0




[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE					FUEL ECON MPG
					HC	CO	CO_2	NO_{xc}	CH_4	
6465	76	DATS	168	N-112						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 612 CO: 0.99 GAIN: 0

SEQ#11 FEDERAL TEST PROC.	2.04	30.1	513.5	3.13		15.6
SEQ#11 50 MPH CRUISE	56.9	0.19		1660.8		
SEQ#11 HIGHWAY FUEL ECON.	0.65	9.0	336.0	4.09		25.2
SEQ#11 4 SPD IDLE (NEUT)	103.2	0.87		58.0		
SEQ#11 4 SPD IDLE (2500)	14.8	0.06		213.7		
SEQ#11 4 SPD IDLE (NEUT)	121.4	0.96		49.0		
SEQ#11 FED 2 MODE (30)	73.1	0.46		757.2		
SEQ#11 FED 2 MODE (NEUT)	440.1	0.69		42.1		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 286 CO: 1.03 GAIN: 15

COMMENT : CONNECTED EGR LINE IN PRE-ADJUSTMENT.PROPANE GAIN OF 50 RPM ACHEIVED AT STEP 7 OF PROPANE ADJUSTMENT PROCEUDRE M-1.IDLE RPM 800 NEUTRAL. WITHOUT PROPANE 850 NEUTRAL.

SEQ#12 FEDERAL TEST PROC.	1.74	24.1	504.8	1.95		16.2
SEQ#12 50 MPH CRUISE	43.7	0.12		785.5		
SEQ#12 HIGHWAY FUEL ECON.	0.42	4.8	348.2	2.54		24.9
SEQ#12 4 SPD IDLE (NEUT)	510.6	0.02		54.8		
SEQ#12 4 SPD IDLE (2500)	35.2	0.04		162.4		
SEQ#12 4 SPD IDLE (NEUT)	173.3	0.02		58.9		
SEQ#12 FED 2 MODE (30)	46.7	0.21		351.8		
SEQ#12 FED 2 MODE (NEUT)	60.5	0.02		55.7		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE MIXTURE SETTING THE SAME FOR THIS SEQUENCE AS #12.MANUFACTURERS SPECIFIED CO IS LESS THAN 1.0%.

SEQ#15 FEDERAL TEST PROC.	1.50	20.7	533.8	2.24		15.5
SEQ#15 50 MPH CRUISE	27.3	0.11		896.8		
SEQ#15 HIGHWAY FUEL ECON.	0.43	4.5	356.9	2.65		24.3
SEQ#15 4 SPD IDLE (NEUT)	679.1	0.03		58.2		
SEQ#15 4 SPD IDLE (2500)	537.2	0.06		176.8		
SEQ#15 4 SPD IDLE (NEUT)	448.8	0.02		60.8		
SEQ#15 FED 2 MODE (30)	48.3	0.20		361.9		
SEQ#15 FED 2 MODE (NEUT)	230.9	0.02		60.9		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                 EMISSION RESULTS                    FUEL
VEH.                                   ---------- GRAMS / MILE -----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC     CO      CO2     NOxc    CH4     MPG
----  -- ---- --- -----------------   -----  -----  ------   -----   ----     ----
6465  76 DATS 168 N-112    (CON'T)

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR FILTER,
                    FUEL FILTER,CARBON CANISTER FILTER,ENGINE OIL &
                    FILTER.ADJUTED IDLE RPM TO SPEC.

          SEQ#16 FEDERAL TEST PROC.   1.62   25.0   502.1    1.86              16.2
          SEQ#16 50 MPH CRUISE        29.6   0.12          666.2
          SEQ#16 HIGHWAY FUEL ECON.   0.45    5.6   341.5    2.37              25.2
          SEQ#16 4 SPD IDLE (NEUT)   552.8   0.03            58.6
          SEQ#16 4 SPD IDLE (2500)   267.1   0.03           167.5
          SEQ#16 4 SPD IDLE (NEUT)    88.3   0.07            52.8
          SEQ#16 FED 2 MODE (30)      46.4   0.36           313.4
          SEQ#16 FED 2 MODE (NEUT)    81.7   0.59            48.2

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  478   CO:  0.06   GAIN:  22

6467  76 TOYO 097 2T-C

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  108   CO:  2.34   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.   1.11   17.4   416.4    2.62              19.8
          SEQ#11 50 MPH CRUISE        35.5   0.41          1325.1
          SEQ#11 HIGHWAY FUEL ECON.   0.58    6.6   268.1    3.74              31.7
          SEQ#11 4 SPD IDLE (NEUT)     9.5   0.41            33.1
          SEQ#11 4 SPD IDLE (2500)     3.9   0.38            53.1
          SEQ#11 4 SPD IDLE (NEUT)     6.6   0.39            34.1
          SEQ#11 FED 2 MODE (30)      61.2   0.53          1054.6
          SEQ#11 FED 2 MODE (NEUT)     6.2   0.40            38.5

          NO FOLLOW UP LANE TEST DONE


          COMMENT : NO PROPANE GAIN DURING PRE-ADJUSTMENT.
                    ADJUSTMENT OF THROTTLE OPENER VALVE WAS NEEDED TO
                    OBTAIN SPECIFIED IDLE SPEED IN STEP 2B OF THE
                    PROPANE ADJUSTMENT PROCUDURE.  50 RPM GAIN WAS
                    ACHEIVED AT STEP 6C.

          SEQ#12 FEDERAL TEST PROC.   1.14   15.5   390.0    2.39              21.2
          SEQ#12 50 MPH CRUISE        33.2   0.44          1172.3
          SEQ#12 HIGHWAY FUEL ECON.   0.52    6.6   256.0    3.57              33.1
          SEQ#12 4 SPD IDLE (NEUT)    76.1   0.25            31.9
          SEQ#12 4 SPD IDLE (2500)     5.9   0.38            49.2
          SEQ#12 4 SPD IDLE (NEUT)    58.6   0.24            36.2
          SEQ#12 FED 2 MODE (30)      69.8   0.63           892.7
          SEQ#12 FED 2 MODE (NEUT)    57.6   0.29            41.6

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                                  LISTING OF TEST RESULTS
                                        HOUSTON #2

                                              EMISSION RESULTS                 FUEL
                                     ---------- GRAMS / MILE ----------        ECON
VEH.
 NO.   YR MAKE CID   ENGINE FAMILY      HC     CO     CO2    NOxc    CH4       MPG
----   -- ---- ---  ---------------   -----  -----  ------  -----   ----       ---
6467   76 TOYO 097 2T-C     (CON'T)

           COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.    1.08   15.5   394.5    2.54             21.0
           SEQ#15 50 MPH CRUISE        37.5    0.35         1357.7
           SEQ#15 HIGHWAY FUEL ECON.    0.55    6.3   271.9    3.82             31.3
           SEQ#15 4 SPD IDLE (NEUT)    87.6    0.14            32.4
           SEQ#15 4 SPD IDLE (2500)     9.5    0.29            59.0
           SEQ#15 4 SPD IDLE (NEUT)    70.1    0.14            35.7
           SEQ#15 FED 2 MODE (30)      65.2    0.44          1029.5
           SEQ#15 FED 2 MODE (NEUT)    57.6    0.16            42.6

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    49  CO:   0.16   GAIN:  60

6468   76 TOYO 133 20R(80-1)

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:   303  CO:   4.98   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.    3.42   84.8   311.8    1.96             19.5
           SEQ#11 50 MPH CRUISE       158.3    4.51          1144.7
           SEQ#11 HIGHWAY FUEL ECON.    1.88   57.4   251.4    2.65             25.5
           SEQ#11 4 SPD IDLE (NEUT)   481.8    1.57            79.3
           SEQ#11 4 SPD IDLE (2500)   137.4    3.03           263.9
           SEQ#11 4 SPD IDLE (NEUT)   477.4    1.60            79.1
           SEQ#11 4 SPD IDLE (DRIV)   261.1    0.63           379.1
           SEQ#11 FED 2 MODE (30)     208.4    3.73          1044.6
           SEQ#11 FED 2 MODE (NEUT)   318.7    3.80            69.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : CORRECTED MISROUTED VACUUM LINES.

           SEQ#12 FEDERAL TEST PROC.    0.69   20.2   417.3    2.21             19.7
           SEQ#12 50 MPH CRUISE         1.6    0.32          1084.6
           SEQ#12 HIGHWAY FUEL ECON.    0.03    3.4   334.1    3.00             26.1
           SEQ#12 4 SPD IDLE (NEUT)   213.1    0.19            41.0
           SEQ#12 4 SPD IDLE (2500)     7.2    0.15            79.9
           SEQ#12 4 SPD IDLE (NEUT)   206.4    0.12            45.0
           SEQ#12 4 SPD IDLE (DRIV)   252.6    0.08            79.3
           SEQ#12 FED 2 MODE (30)       6.6    0.47           543.9
           SEQ#12 FED 2 MODE (NEUT)   132.4    0.11            47.7

           NO FOLLOW UP LANE TEST DONE




     [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6468	76	TOYO	133	20R(80-1) (CON'T)						

COMMENT : ADJUSTED IDLE CO .5%, IDLE RPM 870 NEUTRAL.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	0.65	20.6	436.3	2.39		18.9
SEQ#13 50 MPH CRUISE	2.0	0.16		954.4		
SEQ#13 HIGHWAY FUEL ECON.	0.03	3.3	360.3	3.67		24.3
SEQ#13 4 SPD IDLE (NEUT)	47.7	0.13		36.0		
SEQ#13 4 SPD IDLE (2500)	1.6	0.13		62.8		
SEQ#13 4 SPD IDLE (NEUT)	135.1	0.10		39.8		
SEQ#13 4 SPD IDLE (DRIV)	479.6	0.08		32.1		
SEQ#13 FED 2 MODE (30)	32.5	1.33		926.8		
SEQ#13 FED 2 MODE (NEUT)	41.1	0.14		48.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED AND MIXTURE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	0.65	23.3	427.1	2.30		19.1
SEQ#15 50 MPH CRUISE	0.0	0.24		1024.5		
SFQ#15 HIGHWAY FUEL ECON.	0.02	3.3	347.1	3.48		25.2
SEQ#15 4 SPD IDLE (NEUT)	78.7	0.13		31.5		
SEQ#15 4 SPD IDLE (2500)	3.9	0.16		68.0		
SEQ#15 4 SPD IDLE (NEUT)	124.1	0.17		34.3		
SEQ#15 4 SPD IDLE (DRIV)	55.3	0.14		75.1		
SEQ#15 FED 2 MODE (30)	3.0	0.38		534.8		
SEQ#15 FED 2 MODE (NEUT)	32.2	0.30		35.7		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, PCV VALVE,
AIR FILTER, FUEL FILTER, IGNITION POINTS,
DISTRIBUTOR CAP, ROTOR, ENGINE OIL AND FILTER.
ADJUSTED TIMING IDLE RPM, IDLE MIXTURE.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#16 FEDERAL TEST PROC.	0.64	21.3	441.5	1.72		18.6
SEQ#16 50 MPH CRUISE	0.7	0.23		912.9		
SEQ#16 HIGHWAY FUEL ECON.	0.09	3.1	324.9	3.39		26.9
SEQ#16 4 SPD IDLE (NEUT)	62.9	0.20		33.9		
SEQ#16 4 SPD IDLE (2500)	3.0	0.12		64.5		
SEQ#16 4 SPD IDLE (NEUT)	63.2	0.13		35.6		
SEQ#16 4 SPD IDLE (DRIV)	53.6	0.13		81.9		
SEQ#16 FED 2 MODE (30)	1.6	0.28		342.7		
SEQ#16 FED 2 MODE (NEUT)	67.1	0.11		37.9		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 48 CO: 0.91 GAIN: 36

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
6470	76	VOLK	097	32F						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 39 CO: 1.87 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	1.36	23.6	398.7	2.48		20.2
SEQ#11 50 MPH CRUISE	34.5	0.69		964.4		
SEQ#11 HIGHWAY FUEL ECON.	0.46	11.9	285.3	2.75		29.1
SEQ#11 4 SPD IDLE (NEUT)	20.7	0.91		41.3		
SEQ#11 4 SPD IDLE (2500)	30.9	0.24		82.1		
SEQ#11 4 SPD IDLE (NEUT)	25.0	1.00		41.8		
SEQ#11 FED 2 MODE (30)	51.0	0.48		868.4		
SEQ#11 FED 2 MODE (NEUT)	28.9	1.24		43.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 925 RPM.PROPANE GAIN 50 RPM.USED UNIVERSAL PROPANE METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	1.74	21.5	350.8	4.06		22.8
SEQ#12 50 MPH CRUISE	89.0	1.24		1412.8		
SEQ#12 HIGHWAY FUEL ECON.	1.20	17.9	257.4	4.73		30.7
SEQ#12 4 SPD IDLE (NEUT)	26.0	0.32		52.2		
SEQ#12 4 SPD IDLE (2500)	28.3	0.19		129.0		
SEQ#12 4 SPD IDLE (NEUT)	47.7	0.49		46.5		
SEQ#12 FED 2 MODE (30)	115.8	0.54		1510.5		
SEQ#12 FED 2 MODE (NEUT)	34.2	0.43		50.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 925 RPM,CO .8%,HC 45 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	2.06	43.5	346.4	4.24		21.1
SEQ#15 50 MPH CRUISE	88.0	0.95		1357.7		
SEQ#15 HIGHWAY FUEL ECON.	1.20	17.7	255.9	4.80		30.9
SEQ#15 4 SPD IDLE (NEUT)	45.7	0.18		104.2		
SEQ#15 4 SPD IDLE (2500)	42.7	0.19		121.9		
SEQ#15 4 SPD IDLE (NEUT)	46.0	0.18		93.1		
SEQ#15 FED 2 MODE (30)	112.5	0.65		1515.5		
SEQ#15 FED 2 MODE (NEUT)	40.1	0.17		106.5		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
6470	76	VOLK	097	32F (CON'T)

COMMENT : REPLACED SPARK PLUGS,AIR FILTER ELEMENT,OIL & OIL FILTER,FUEL FILTER.SET TO MANUFACTURERS SPECS.REPLACED ANTI-BACKFIRE VACUUM HOSE.

	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	1.94	29.5	347.2	3.66		22.2
SEQ#16 50 MPH CRUISE	90.9	1.42		1347.6		
SEQ#16 HIGHWAY FUEL ECON.	1.11	23.3	242.7	4.06		31.4
SEQ#16 4 SPD IDLE (NEUT)	166.0	0.22		146.0		
SEQ#16 4 SPD IDLE (2500)	84.7	0.20		138.0		
SEQ#16 4 SPD IDLE (NEUT)	150.0	0.22		136.7		
SEQ#16 FED 2 MODE (30)	102.2	0.91		1400.2		
SEQ#16 FED 2 MODE (NEUT)	141.4	0.20		147.5		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 157 CO: 0.22 GAIN: 59

5471 75 AMC 232 I

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 124 CO: 5.36 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	2.94	104.1	645.8	1.55		10.8
SEQ#11 50 MPH CRUISE	17.4	0.16		351.8		
SEQ#11 HIGHWAY FUEL ECON.	0.99	30.6	499.2	1.21		16.1
SEQ#11 4 SPD IDLE (NEUT)	109.8	4.62		65.9		
SEQ#11 4 SPD IDLE (2500)	6.6	1.01		128.5		
SEQ#11 4 SPD IDLE (NEUT)	119.1	5.54		65.8		
SEQ#11 4 SPD IDLE (DRIV)	158.0	5.16		73.3		
SEQ#11 FED 2 MODE (30)	2.0	0.12		616.7		
SEQ#11 FED 2 MODE (NEUT)	111.2	5.81		69.2		

NO FOLLOW UP LANE TEST DONE

COMMENT : THE AIR CLEANER ASSEMBLY WAS REPLACED TO CORRECT THE HEATED AIR INTAKE SYSTEM - NO CHANGE. PROPANE GAIN 50 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	2.57	70.7	637.2	1.78		11.7
SEQ#12 50 MPH CRUISE	124.8	0.04		393.3		
SEQ#12 HIGHWAY FUEL ECON.	0.64	15.6	554.7	1.73		15.3
SEQ#12 4 SPD IDLE (NEUT)	136.7	1.55		113.4		
SEQ#12 4 SPD IDLE (2500)	63.2	2.40		107.0		
SEQ#12 4 SPD IDLE (NEUT)	96.2	1.30		120.1		
SEQ#12 4 SPD IDLE (DRIV)	125.8	0.89		192.2		
SEQ#12 FED 2 MODE (30)	20.4	0.12		662.2		
SEQ#12 FED 2 MODE (NEUT)	62.2	1.10		117.2		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5471	75	AMC	232	I (CON'T)						

COMMENT : ADJUSTED IDLE CO .5%, HC 170 PPM, IDLE NEUTRAL 600 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	1.66	31.0	580.7	2.34		14.0
SEQ#13 50 MPH CRUISE	33.8	0.66		613.6		
SEQ#13 HIGHWAY FUEL ECON.	0.77	17.2	447.0	2.38		18.6
SEQ#13 4 SPD IDLE (NEUT)	56.6	0.15		88.3		
SEQ#13 4 SPD IDLE (2500)	10.2	0.77		236.6		
SEQ#13 4 SPD IDLE (NEUT)	64.8	0.33		95.2		
SEQ#13 4 SPD IDLE (DRIV)	107.8	0.20		148.8		
SEQ#13 FED 2 MODE (30)	12.1	0.15		623.7		
SEQ#13 FED 2 MODE (NEUT)	59.6	0.69		94.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED, MIXTURE & TIMING TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	1.90	21.6	521.7	3.23		15.8
SEQ#15 50 MPH CRUISE	26.9	0.58		984.4		
SEQ#15 HIGHWAY FUEL ECON.	1.00	13.2	420.2	3.29		20.0
SEQ#15 4 SPD IDLE (NEUT)	58.2	0.13		79.9		
SEQ#15 4 SPD IDLE (2500)	36.5	2.16		241.4		
SEQ#15 4 SPD IDLE (NEUT)	66.8	0.14		83.1		
SEQ#15 4 SPD IDLE (DRIV)	118.1	0.10		143.9		
SEQ#15 FED 2 MODE (30)	69.8	1.25		678.3		
SEQ#15 FED 2 MODE (NEUT)	77.1	0.30		83.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED PLUGS, AIR FILTER, FUEL FILTER, PCV VALVE, CARBON CANISTER FILTER, CRANKCASE BREATHER FILTER, ENGINE OIL AND FILTER. ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	3.44	99.3	511.0	1.61		13.1
SEQ#16 50 MPH CRUISE	73.8	3.75		453.9		
SEQ#16 HIGHWAY FUEL ECON.	1.45	32.5	407.5	1.37		19.2
SEQ#16 4 SPD IDLE (NEUT)	37.5	0.58		123.4		
SEQ#16 4 SPD IDLE (2500)	38.5	2.70		219.3		
SEQ#16 4 SPD IDLE (NEUT)	38.8	0.52		122.6		
SEQ#16 4 SPD IDLE (DRIV)	91.6	0.35		252.7		
SEQ#16 FED 2 MODE (30)	89.6	2.74		434.7		
SEQ#16 FED 2 MODE (NEUT)	41.1	1.13		126.5		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 97 CO: 3.15 GAIN: 22

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5472	75	AMC	258	I						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 211 CO: 7.42 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	3.17	77.4	528.0	6.89		13.5
SEQ#11 50 MPH CRUISE	53.9	0.68		1074.6		
SEQ#11 HIGHWAY FUEL ECON.	1.49	29.7	376.5	6.75		20.7
SEQ#11 4 SPD IDLE (NEUT)	108.8	3.05		29.9		
SEQ#11 4 SPD IDLE (2500)	49.0	1.19		177.3		
SEQ#11 4 SPD IDLE (NEUT)	106.8	2.87		30.6		
SEQ#11 4 SPD IDLE (DRIV)	120.1	3.25		36.7		
SEQ#11 FED 2 MODE (30)	67.5	0.91		548.9		
SEQ#11 FED 2 MODE (NEUT)	96.9	2.67		29.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 550 RPMS,IDLE NEUTRAL 660 RPMS,PROPANE GAIN 65 RPMS.USED UNIVERSAL METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	3.01	46.4	517.0	2.47		14.8
SEQ#12 50 MPH CRUISE	59.9	0.91		394.3		
SEQ#12 HIGHWAY FUEL ECON.	1.57	30.9	365.4	2.61		21.2
SEQ#12 4 SPD IDLE (NEUT)	67.5	0.27		56.6		
SEQ#12 4 SPD IDLE (2500)	58.9	1.86		65.4		
SEQ#12 4 SPD IDLE (NEUT)	120.1	0.23		56.5		
SEQ#12 4 SPD IDLE (DRIV)	91.3	0.22		113.1		
SEQ#12 FED 2 MODE (30)	90.6	1.53		103.6		
SEQ#12 FED 2 MODE (NEUT)	100.9	0.47		51.3		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE SPEED 550 RPMS DRIVE,CO .4%.EXHAUST TEMP SO HIGH THAT IT MELTED THE TIP OF THE SAMPLE HOSE.TIMING 20 DEGREES ADVANCED.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	3.56	66.6	497.0	2.44		14.5
SEQ#13 50 MPH CRUISE	75.4	0.87		658.1		
SEQ#13 HIGHWAY FUEL ECON.	1.46	23.3	369.4	2.88		21.6
SEQ#13 4 SPD IDLE (NEUT)	243.9	5.68		55.4		
SEQ#13 4 SPD IDLE (2500)	85.3	2.55		115.7		
SEQ#13 4 SPD IDLE (NEUT)	291.7	6.32		53.6		
SEQ#13 4 SPD IDLE (DRIV)	271.2	6.93		64.6		
SEQ#13 FED 2 MODE (30)	121.1	1.71		236.5		
SEQ#13 FED 2 MODE (NEUT)	280.9	6.43		53.2		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                       EMISSION RESULTS                  FUEL
VEH.                                          ---------- GRAMS / MILE -----------        ECON
 NO.   YR MAKE CID     ENGINE FAMILY            HC      CO      CO2     NOxc    CH4      MPG
----   -- ---- --- -----------------          -----   -----   ------   -----   ----     ----
5472   75 AMC  258 I    (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 550 RPMS,CO .11%,HC 30 PPM,
                    IDLE NEUTRAL 620 RPMS,CO .13%,HC 20 PPM,PROPANE
                    GAIN 140 RPMS.ADJUSTED TIMING TO SPEC.

          SEQ#15 FEDERAL TEST PROC.          2.33    38.9    700.5     1.70              11.5
          SEQ#15 50 MPH CRUISE              20.4     0.37            410.4
          SEQ#15 HIGHWAY FUEL ECON.          1.08    18.5    465.7     1.57              17.8
          SEQ#15 4 SPD IDLE (NEUT)          16.1     0.11            101.6
          SEQ#15 4 SPD IDLE (2500)          18.7     2.29            105.2
          SEQ#15 4 SPD IDLE (NEUT)          12.5     0.10             97.7
          SEQ#15 4 SPD IDLE (DRIV)          27.6     0.10            173.2
          SEQ#15 FED 2 MODE (30)            33.8     0.79            212.9
          SEQ#15 FED 2 MODE (NEUT)          13.5     0.09             87.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : REPLACED PCV VALVE AND FILTER,OIL AND OIL FILTER,
                    FUEL FILTER,SPARK PLUGS.SET TO SPEC.

          SEQ#16 FEDERAL TEST PROC.          2.19    38.9    645.8     1.44              12.4
          SEQ#16 50 MPH CRUISE              16.1     0.34            310.4
          SEQ#16 HIGHWAY FUEL ECON.          0.98    18.7    458.0     1.40              18.1
          SEQ#16 4 SPD IDLE (NEUT)          38.8     0.28             90.9
          SEQ#16 4 SPD IDLE (2500)          20.4     1.43            100.6
          SEQ#16 4 SPD IDLE (NEUT)          40.1     0.20            100.3
          SEQ#16 4 SPD IDLE (DRIV)          82.3     0.29            165.7
          SEQ#16 FED 2 MODE (30)            35.2     0.54            180.9
          SEQ#16 FED 2 MODE (NEUT)          36.5     0.22             93.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  103   CO:  0.51   GAIN:  30

5473  75 DODG 225 F-RG-CII

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  210   CO:  7.98   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.          2.42    25.9    452.4     4.76              17.7
          SEQ#11 50 MPH CRUISE              19.4     0.01           2189.3
          SEQ#11 HIGHWAY FUEL ECON.          0.25     1.9    367.3     8.55              23.9
          SEQ#11 4 SPD IDLE (NEUT)         208.1     5.00             69.3
          SEQ#11 4 SPD IDLE (2500)          21.3     0.02            454.9
          SEQ#11 4 SPD IDLE (NEUT)         192.0     4.78             62.3
          SEQ#11 4 SPD IDLE (DRIV)         216.5     4.92             75.3
          SEQ#11 FED 2 MODE (30)            53.0     0.01            793.6
          SEQ#11 FED 2 MODE (NEUT)         235.6     4.85             49.9

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  192   CO:  4.78   GAIN:   0
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5473	75	DODG	225	F-RG-CII . (CON'T)						

COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT.
50 RPM PROPANE GAIN ACHEIVED AT STEP 6 OF PROPANE
CARBURETOR ADJUSTMENT PROCEDURE A-1.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	0.88	6.1	458.0	6.11		18.9
SEQ#12 50 MPH CRUISE	22.7	0.01		2268.0		
SEQ#12 HIGHWAY FUEL ECON.	0.07	0.5	378.9	9.50		23.4
SEQ#12 4 SPD IDLE (NEUT)	24.6	0.01		181.4		
SEQ#12 4 SPD IDLE (2500)	3.9	0.00		708.7		
SEQ#12 4 SPD IDLE (NEUT)	9.5	0.00		143.9		
SEQ#12 4 SPD IDLE (DRIV)	21.7	0.01		227.3		
SEQ#12 FED 2 MODE (30)	37.1	0.01		1678.3		
SEQ#12 FED 2 MODE (NEUT)	15.4	0.00		140.8		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 100 CO: 0.00 GAIN: 50

COMMENT : ADJUSTED IDLE CO TO .5% AT STEP 3 OF IDLE CO
CARBURETOR ADJUSTMENT A-1. IDLE NEUTRAL 750 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	0.95	9.9	461.2	7.11		18.5
SEQ#13 50 MPH CRUISE	19.0	0.00		2554.0		
SEQ#13 HIGHWAY FUEL ECON.	0.11	0.7	377.2	9.51		23.4
SEQ#13 4 SPD IDLE (NEUT)	44.4	0.21		133.7		
SEQ#13 4 SPD IDLE (2500)	2.0	0.00		661.1		
SEQ#13 4 SPD IDLE (NEUT)	7.9	0.00		143.4		
SEQ#13 4 SPD IDLE (DRIV)	51.3	0.04		166.8		
SEQ#13 FED 2 MODE (30)	30.2	0.00		1856.1		
SEQ#13 FED 2 MODE (NEUT)	10.5	0.00		166.8		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 7 CO: 0.00 GAIN: 50

COMMENT : ADJUSTED IDLE NEUTRAL TO 750 RPM, ADJUSTED CO TO
.3%.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	1.09	10.1	487.2	7.58		17.5
SEQ#15 50 MPH CRUISE	11.8	0.00		2761.1		
SEQ#15 HIGHWAY FUEL ECON.	0.11	0.6	368.3	10.66		24.0
SEQ#15 4 SPD IDLE (NEUT)	15.4	0.01		168.5		
SEQ#15 4 SPD IDLE (2500)	3.0	0.01		744.0		
SEQ#15 4 SPD IDLE (NEUT)	7.2	0.00		149.1		
SEQ#15 4 SPD IDLE (DRIV)	25.0	0.01		260.8		
SEQ#15 FED 2 MODE (30)	31.5	0.01		1768.5		
SEQ#15 FED 2 MODE (NEUT)	9.8	0.00		151.9		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 7 CO: 0.00 GAIN: 80

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                FUEL
VEH.                                     ---------- GRAMS / MILE -----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4     MPG
----   -- ---- ---  -----------------    -----   -----   ------  ------   ----    ----
5473   75 DODG 225  F-RG-CII    (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, FUEL, AIR,
                     CANISTER AND OIL FILTER, PCV VALVE AND OIL.
                     REPLACED CARBURETOR AND ADJUSTED IDLE SPEED AND
                     MIXTURE TO SPEC.

           SEQ#16 FEDERAL TEST PROC.     0.95    10.8    493.7     3.35             17.3
           SEQ#16 50 MPH CRUISE        134.1     0.00            1014.5
           SEQ#16 HIGHWAY FUEL ECON.     0.09     0.8    372.1     3.79             23.8
           SEQ#16 4 SPD IDLE (NEUT)     45.0     0.00             102.1
           SEQ#16 4 SPD IDLE (2500)     28.6     0.00             253.7
           SEQ#16 4 SPD IDLE (NEUT)     15.8     0.00             101.1
           SEQ#16 4 SPD IDLE (DRIV)     29.2     0.00             175.7
           SEQ#16 FED 2 MODE (30)       40.4     0.00            1002.0
           SEQ#16 FED 2 MODE (NEUT)     11.5     0.00             100.3

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    16  CO:  0.00   GAIN:  60

5475   75 DODG 225 F-RG-CII

           PRELIMINARY LANE TEST:
           CAT: P     FUEL: P
           HC:   134  CO:  5.55   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.     3.09    68.9    496.5     2.57             14.4
           SEQ#11 50 MPH CRUISE         23.0     0.10             717.8
           SEQ#11 HIGHWAY FUEL ECON.     1.12    18.5    394.0     2.85             20.8
           SEQ#11 4 SPD IDLE (NEUT)    119.8     4.44              74.3
           SEQ#11 4 SPD IDLE (2500)     90.6     2.03             220.9
           SEQ#11 4 SPD IDLE (NEUT)    122.8     4.16              77.7
           SEQ#11 4 SPD IDLE (DRIV)    170.3     4.00             100.1
           SEQ#11 FED 2 MODE (30)      161.0     1.46            1032.0
           SEQ#11 FED 2 MODE (NEUT)    114.1     4.03              82.6

           NO FOLLOW UP LANE TEST DONE

           COMMENT : CORRECTED PCV LINE, ADJUSTED IDLE MIXTURE, 50 RPM
                     PROPANE GAIN.

           SEQ#12 FEDERAL TEST PROC.     2.54    36.8    530.6     2.80             14.9
           SEQ#12 50 MPH CRUISE         94.3     0.53             847.2
           SEQ#12 HIGHWAY FUEL ECON.     1.35    21.3    394.2     2.67             20.5
           SEQ#12 4 SPD IDLE (NEUT)     40.4     0.11             113.9
           SEQ#12 4 SPD IDLE (2500)     41.7     0.32             213.7
           SEQ#12 4 SPD IDLE (NEUT)     11.5     0.01             132.9
           SEQ#12 4 SPD IDLE (DRIV)     22.7     0.01             232.4
           SEQ#12 FED 2 MODE (30)       55.9     0.06            1017.0
           SEQ#12 FED 2 MODE (NEUT)     15.1     0.01             138.5

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                      FUEL
VEH.                                    --------- GRAMS / MILE ------------              ECON
 NO.   YR MAKE CID   ENGINE FAMILY        HC      CO      CO2     NOxc    CH4            MPG
-----  -- ---- ---  ----------------    -----   -----   ------   -----    ---            ----
5475   75 DODG 225 F-RG-CII    (CON'T)

           COMMENT : ADJUSTED IDLE NEUTRAL 770 RPM, CO .5%, HC 60 PPM.
                     USED UNIVERSAL CO METHOD.

           SEQ#13 FEDERAL TEST PROC.     2.32    35.8    504.8    2.45                   15.6
           SEQ#13 50 MPH CRUISE         81.0     0.40           734.9
           SEQ#13 HIGHWAY FUEL ECON.     1.15    17.8    377.2    2.37                   21.7
           SEQ#13 4 SPD IDLE (NEUT)     29.2     0.05           112.4
           SEQ#13 4 SPD IDLE (2500)     15.1     0.10           190.4
           SEQ#13 4 SPD IDLE (NEUT)      7.2     0.01           124.2
           SEQ#13 4 SPD IDLE (DRIV)     17.4     0.02           178.8
           SEQ#13 FED 2 MODE (30)       49.3     0.13           867.4
           SEQ#13 FED 2 MODE (NEUT)      9.2     0.01           124.9

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED CO TO .3%, IDLE NEUTRAL 750 RPM.

           SEQ#15 FEDERAL TEST PROC.     1.88    29.2    547.5    2.59                   14.8
           SEQ#15 50 MPH CRUISE         88.0     0.63           834.1
           SEQ#15 HIGHWAY FUEL ECON.     1.22    20.2    392.1    2.58                   20.8
           SEQ#15 4 SPD IDLE (NEUT)     18.4     0.00           129.0
           SEQ#15 4 SPD IDLE (2500)     27.6     0.27           185.2
           SEQ#15 4 SPD IDLE (NEUT)      3.6     0.00           127.5
           SEQ#15 4 SPD IDLE (DRIV)     16.7     0.00           231.4
           SEQ#15 FED 2 MODE (30)       83.0     0.16           899.3
           SEQ#15 FED 2 MODE (NEUT)     12.5     0.00           129.0

           NO FOLLOW UP LANE TEST DONE

           COMMENT : MAJOR TUNE-UP.  REPLACED AIR FILTER, FUEL FILTER,
                     PCV VALVE, CRANKCASE BREATHER FILTER, CARBON
                     CANISTER FILTER, DISTRIBUTOR CAP, AIR FILTER,
                     SPARK PLUGS, OIL AND OIL FILTER.  ADJUSTED IDLE
                     SPEED & MIXTURE TO SPEC, ALSO FAST IDLE SPEED.

           SEQ#16 FEDERAL TEST PROC.     1.72    34.8    585.9    1.83                   13.7
           SEQ#16 50 MPH CRUISE         66.5     1.10           406.4
           SEQ#16 HIGHWAY FUEL ECON.     1.28    30.3    438.5    1.48                   18.1
           SEQ#16 4 SPD IDLE (NEUT)     46.4     0.06           119.5
           SEQ#16 4 SPD IDLE (2500)      7.5     0.32           109.0
           SEQ#16 4 SPD IDLE (NEUT)      2.3     0.00           129.3
           SEQ#16 4 SPD IDLE (DRIV)     17.4     0.01           157.3
           SEQ#16 FED 2 MODE (30)       41.7     0.32           362.9
           SEQ#16 FED 2 MODE (NEUT)      9.5     0.00           131.9

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   78  CO:  0.36   GAIN:  67
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5476	75	DODG	318	F-LA2P-C						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 280 CO: 7.00 GAIN: 0

SEQ#11 FEDERAL TEST PROC.	6.38	152.8	518.9	2.09		11.4
SEQ#11 50 MPH CRUISE	110.8	2.21		688.4		
SEQ#11 HIGHWAY FUEL ECON.	3.21	99.9	372.4	2.63		16.4
SEQ#11 4 SPD IDLE (NEUT)	160.0	3.91		28.8		
SEQ#11 4 SPD IDLE (2500)	46.0	0.86		242.4		
SEQ#11 4 SPD IDLE (NEUT)	162.0	4.11		31.0		
SEQ#11 4 SPD IDLE (DRIV)	200.1	4.01		34.5		
SEQ#11 FED 2 MODE (30)	103.9	0.64		1224.9		
SEQ#11 FED 2 MODE (NEUT)	176.7	4.33		34.7		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 750 RPM, PROPANE GAIN 60 RPM, USED UNIVERSAL PROPANE METHOD.

SEQ#12 FEDERAL TEST PROC.	1.42	13.3	604.6	4.49		14.1
SEQ#12 50 MPH CRUISE	21.3	0.01		2494.8		
SEQ#12 HIGHWAY FUEL ECON.	0.20	1.1	436.6	7.61		20.2
SEQ#12 4 SPD IDLE (NEUT)	11.8	0.00		78.3		
SEQ#12 4 SPD IDLE (2500)	3.0	0.01		439.8		
SEQ#12 4 SPD IDLE (NEUT)	8.5	0.00		88.5		
SEQ#12 4 SPD IDLE (DRIV)	19.0	0.00		134.2		
SEQ#12 FED 2 MODE (30)	41.1	0.01		2211.8		
SEQ#12 FED 2 MODE (NEUT)	13.5	0.00		100.6		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE NEUTRAL 720 RPM, CO .5%, HC 120 PPM. USED UNIVERSAL CO METHOD.

SEQ#13 FEDERAL TEST PROC.	1.69	13.0	611.8	4.49		13.9
SEQ#13 50 MPH CRUISE	22.3	0.00		2554.0		
SEQ#13 HIGHWAY FUEL ECON.	0.15	0.8	408.4	6.84		21.6
SEQ#13 4 SPD IDLE (NEUT)	17.4	0.01		67.7		
SEQ#13 4 SPD IDLE (2500)	6.9	0.01		488.3		
SEQ#13 4 SPD IDLE (NEUT)	16.4	0.01		79.0		
SEQ#13 4 SPD IDLE (DRIV)	31.5	0.00		117.5		
SEQ#13 FED 2 MODE (30)	51.3	0.01		2297.0		
SEQ#13 FED 2 MODE (NEUT)	22.0	0.01		93.1		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                        LISTING OF TEST RESULTS
                              HOUSTON #2

                                                      EMISSION RESULTS                         FUEL
VEH.                                          ---------- GRAMS / MILE ----------               ECON
 NO.   YR MAKE CID     ENGINE FAMILY          HC      CO      CO2     NOxc     CH4      MPG
----   -- ---- ---  -----------------       -----   -----   ------   -----    -----    ----
5476   75 DODG 318 F-LA2P-C     (CON'T)

         COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

         SEQ#15 FEDERAL TEST PROC.           1.46    13.7    603.5     4.57             14.1
         SEQ#15 50 MPH CRUISE               19.4     0.01           2249.4
         SEQ#15 HIGHWAY FUEL ECON.           0.16    1.1     428.0     7.68             20.6
         SEQ#15 4 SPD IDLE (NEUT)           13.5     0.01             70.6
         SEQ#15 4 SPD IDLE (2500)            7.2     0.01            420.5
         SEQ#15 4 SPD IDLE (NEUT)           12.1     0.01             79.1
         SEQ#15 4 SPD IDLE (DRIV)           21.3     0.01            115.2
         SEQ#15 FED 2 MODE (30)             36.8     0.01           2006.4
         SEQ#15 FED 2 MODE (NEUT)           13.1     0.01             94.2

         NO FOLLOW UP LANE TEST DONE


         COMMENT : MAJOR TUNE-UP.REPLACED OIL & OIL FILTER,AIR,
                   CANISTER & FUEL FILTER,SPRAK PLUGS,PCV
                   VALVE.ADJUSTED TIMING,IDLE SPEED & MIXTURE TO SPEC.

         SEQ#16 FEDERAL TEST PROC.           1.26    11.9    640.0     3.72             13.4
         SEQ#16 50 MPH CRUISE               25.6     0.00           1838.6
         SEQ#16 HIGHWAY FUEL ECON.           0.11    0.7     429.2     5.99             20.6
         SEQ#16 4 SPD IDLE (NEUT)           10.2     0.00             71.1
         SEQ#16 4 SPD IDLE (2500)            0.0     0.00            353.8
         SEQ#16 4 SPD IDLE (NEUT)            1.0     0.00             79.6
         SEQ#16 4 SPD IDLE (DRIV)            8.2     0.00            117.0
         SEQ#16 FED 2 MODE (30)             26.9     0.00           1490.4
         SEQ#16 FED 2 MODE (NEUT)            3.9     0.00            102.1

         FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
         HC:    54  CO:   0.02    GAIN: 124

5477  75 PLYM 318 F-LA2-AP

         PRELIMINARY LANE TEST:
         CAT: P     FUEL: P
         HC:  913   CO:   1.51    GAIN:   0

         SEQ#11 FEDERAL TEST PROC.          22.23    31.7    610.8     4.83             12.1
         SEQ#11 50 MPH CRUISE             1214.4     0.10           1933.8
         SEQ#11 HIGHWAY FUEL ECON.          15.50    4.0     441.3     8.90             17.9
         SEQ#11 4 SPD IDLE (NEUT)         1140.9     0.93             37.3
         SEQ#11 4 SPD IDLE (2500)          993.8     0.11            414.5
         SEQ#11 4 SPD IDLE (NEUT)         1027.3     1.07             31.4
         SEQ#11 4 SPD IDLE (DRIV)         1263.7     2.13             33.4
         SEQ#11 FED 2 MODE (30)           1273.6     0.07           1267.5
         SEQ#11 FED 2 MODE (NEUT)         1089.9     1.06             39.1

         NO FOLLOW UP LANE TEST DONE



[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5477	75	PLYM	318	F-LA2-AP (CON'T)						

COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT.PROPANE GAIN 60 RPM.IDL RPM WITHOUT PROPANE 890 RPM,WITH PROPANE 950 RPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	25.98	18.6	634.9	5.44		11.9
SEQ#12 50 MPH CRUISE	1160.4	0.08		1750.9		
SEQ#12 HIGHWAY FUEL ECON.	16.59	3.8	450.3	7.96		17.4
SEQ#12 4 SPD IDLE (NEUT)	1126.3	0.13		71.6		
SEQ#12 4 SPD IDLE (2500)	1039.3	0.10		439.8		
SEQ#12 4 SPD IDLE (NEUT)	1170.2	0.21		83.6		
SEQ#12 4 SPD IDLE (DRIV)	1286.1	0.26		167.0		
SEQ#12 FED 2 MODE (30)	1243.9	0.07		1057.1		
SEQ#12 FED 2 MODE (NEUT)	1158.0	0.23		96.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE CO .2% ON HOOK-UP.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	22.16	19.4	615.2	4.54		12.4
SEQ#13 50 MPH CRUISE	1204.5	0.09		1663.3		
SEQ#13 HIGHWAY FUEL ECON.	15.22	3.7	442.0	7.62		17.9
SEQ#13 4 SPD IDLE (NEUT)	1070.6	0.33		48.1		
SEQ#13 4 SPD IDLE (2500)	996.2	0.10		290.1		
SEQ#13 4 SPD IDLE (NEUT)	1080.3	0.36		51.1		
SEQ#13 4 SPD IDLE (DRIV)	1693.8	0.72		135.5		
SEQ#13 FED 2 MODE (30)	1246.4	0.07		1079.6		
SEQ#13 FED 2 MODE (NEUT)	1099.6	0.35		57.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED TIMING -2,IDLE RPM 900 IN NEUTRAL,CO TO .5% .MANUFACTURERES SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	29.43	17.7	674.7	3.84		11.2
SEQ#15 50 MPH CRUISE	868.5	0.10		771.3		
SEQ#15 HIGHWAY FUEL ECON.	16.07	4.8	468.6	5.16		16.8
SEQ#15 4 SPD IDLE (NEUT)	1008.2	0.12		55.0		
SEQ#15 4 SPD IDLE (2500)	970.0	0.10		199.1		
SEQ#15 4 SPD IDLE (NEUT)	1022.5	0.13		57.9		
SEQ#15 4 SPD IDLE (DRIV)	1209.4	0.15		104.9		
SEQ#15 FED 2 MODE (30)	1097.2	0.07		530.7		
SEQ#15 FED 2 MODE (NEUT)	1005.8	0.13		59.2		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                 EMISSION RESULTS
VEH.                                    ---------- GRAMS / MILE ----------   FUEL
 NO.   YR MAKE CID    ENGINE FAMILY      HC     CO     CO2    NOxc   CH4     ECON
                                                                              MPG
----   -- ---- --- ---------------     ----  -----  ------   -----  ---     ----
5477   75 PLYM 318 F-LA2-AP     (CON'T)

       COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,CANISTER
                 FILTER,FUEL FILTER,OIL AND OIL FILTER,AIR FILTER,
                 TEMPERATURE SENSOR,PCV VALVE,SPARK PLUG WIRE
                 #4.ADJUSTED CURB IDLE TO SPEC.ADJUSTED TIMING TO
                 SPEC

       SEQ#16 FEDERAL TEST PROC.       1.70   10.4   741.0    2.83           11.6
       SEQ#16 50 MPH CRUISE           52.3    0.10           788.5
       SEQ#16 HIGHWAY FUEL ECON.       1.15    3.5   458.1    4.24           19.0
       SEQ#16 4 SPD IDLE (NEUT)       20.0    0.08            72.3
       SEQ#16 4 SPD IDLE (2500)       32.9    0.11           152.4
       SEQ#16 4 SPD IDLE (NEUT)       13.8    0.08            65.5
       SEQ#16 4 SPD IDLE (DRIV)       26.0    0.10           101.1
       SEQ#16 FED 2 MODE (30)         65.2    0.08           427.6
       SEQ#16 FED 2 MODE (NEUT)        9.2    0.08            64.2

       FOLLOW UP LANE TEST:
       CAT: P     FUEL: P
       HC:    16  CO:   0.08   GAIN: 271

5478   75 DODG 360 F-LA2L-C

       PRELIMINARY LANE TEST:
       CAT: P     FUEL: P
       HC:  247   CO:   6.91   GAIN:   0

       SEQ#11 FEDERAL TEST PROC.       5.23  100.0   611.9    3.46           11.3
       SEQ#11 50 MPH CRUISE           13.5    0.05          2206.8
       SEQ#11 HIGHWAY FUEL ECON.       0.71   14.8   477.9    6.96           17.6
       SEQ#11 4 SPD IDLE (NEUT)      221.8    5.89            48.0
       SEQ#11 4 SPD IDLE (2500)       14.4    0.01           530.7
       SEQ#11 4 SPD IDLE (NEUT)      206.1    6.10            49.4
       SEQ#11 4 SPD IDLE (DRIV)      239.9    5.67            50.6
       SEQ#11 FED 2 MODE (30)         32.5    0.02          1224.9
       SEQ#11 FED 2 MODE (NEUT)      186.0    5.28            63.4

       NO FOLLOW UP LANE TEST DONE

       COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT 50
                 RPM PROPANE GAIN ACHEIVED AT STEP 7 OF PROPANE
                 CARBURETOR ADJUSTMENT PROCEDURE A-2.IDLE RPM
                 WITHOUT PROPANE 750,WITH PROPANE 800 RPM.

       SEQ#12 FEDERAL TEST PROC.       2.90   55.6   683.8    4.02           11.4
       SEQ#12 50 MPH CRUISE           10.8    0.11          2086.6
       SEQ#12 HIGHWAY FUEL ECON.       0.64   16.1   481.4    7.48           17.4
       SEQ#12 4 SPD IDLE (NEUT)       76.1    1.36            63.4
       SEQ#12 4 SPD IDLE (2500)        9.5    0.01           491.3
       SEQ#12 4 SPD IDLE (NEUT)       59.6    1.21            67.5
       SEQ#12 4 SPD IDLE (DRIV)       97.9    0.98            94.8
       SEQ#12 FED 2 MODE (30)         41.1    0.00          1189.8
       SEQ#12 FED 2 MODE (NEUT)       49.7    0.81            74.9

       NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                EMISSION RESULTS                   FUEL
VEH.                                  --------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY     HC     CO      CO2    NOxc    CH4          MPG
----   -- ---- --- ----------------   -----  -----  ------  -----   ----          ----
5478   75 DODG 360 F-LA2L-C    (CON'T)

          COMMENT : ADJUSTED IDLE CO TO .5%,HC 70 PPM,IDLE RPM 740
                    RPM.

          SEQ#13 FEDERAL TEST PROC.   2.30    41.4   696.8   4.35                  11.5
          SEQ#13 50 MPH CRUISE        13.8    0.18          1978.9
          SEQ#13 HIGHWAY FUEL ECON.   0.54    13.9   496.6   7.52                  17.1
          SEQ#13 4 SPD IDLE (NEUT)    55.9    0.80           71.7
          SEQ#13 4 SPD IDLE (2500)     1.6    0.04          543.9
          SEQ#13 4 SPD IDLE (NEUT)    43.4    0.72           75.7
          SEQ#13 4 SPD IDLE (DRIV)    26.9    0.03           79.8
          SEQ#13 FED 2 MODE (30)      28.3    0.00          1325.1
          SEQ#13 FED 2 MODE (NEUT)    33.8    0.24           77.4

          NO FOLLOW UP LANE TEST DONE


          COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.   2.30    41.9   668.2   5.21                  12.0
          SEQ#15 50 MPH CRUISE         8.2    0.23          1968.9
          SEQ#15 HIGHWAY FUEL ECON.   0.41    11.4   471.9   7.40                  18.1
          SEQ#15 4 SPD IDLE (NEUT)     3.6    0.00           72.6
          SEQ#15 4 SPD IDLE (2500)     0.0    0.00          463.0
          SEQ#15 4 SPD IDLE (NEUT)     0.0    0.00           82.5
          SEQ#15 4 SPD IDLE (DRIV)     1.3    0.00          122.4
          SEQ#15 FED 2 MODE (30)      16.7    0.00          949.4
          SEQ#15 FED 2 MODE (NEUT)     9.8    0.00           87.2

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:     0 CO:  0.00   GAIN: 110


          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR,FUEL,OIL,
                    CRANCASE BREATHER & CARBON CANISTER FILTERS,PCV
                    VALVE,ENGINE OIL,TIMING DELAY SOLENOID.ADJUSTED
                    IDLE SPEED & MIXTURE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.   2.55    55.1   688.7   4.66                  11.3
          SEQ#16 50 MPH CRUISE        20.0    0.02          2169.3
          SEQ#16 HIGHWAY FUEL ECON.   0.33     9.2   494.2   6.68                  17.4
          SEQ#16 4 SPD IDLE (NEUT)    33.8    0.00           64.2
          SEQ#16 4 SPD IDLE (2500)    19.4    0.00          340.7
          SEQ#16 4 SPD IDLE (NEUT)     8.2    0.00           63.7
          SEQ#16 4 SPD IDLE (DRIV)    28.3    0.00           99.0
          SEQ#16 FED 2 MODE (30)      26.9    0.00          1002.0
          SEQ#16 FED 2 MODE (NEUT)    13.5    0.00           69.4

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   100 CO:  0.00   GAIN: 140
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                  AUTOMOTIVE TESTING LABORATORIES,INC.
                         TEXAS PILOT I/M STUDY

                          LISTING OF TEST RESULTS
                                HOUSTON #2

VEH.                                              EMISSION RESULTS                       FUEL
 NO.   YR MAKE CID    ENGINE FAMILY      -------- GRAMS / MILE ----------              ECON
----   -- ---- ---  ------------------    HC     CO      CO2     NOxc     CH4       MPG
5479   75 PLYM 400  F-B2-C               ----   -----   ------   -----    ----      ----

          PRELIMINARY LANE TEST:
          CAT: P      FUEL: P
          HC:  134    CO:  4.36    GAIN:    0

          SEQ#11 FEDERAL TEST PROC.      4.58   38.5    829.1     2.71               9.8
          SEQ#11 50 MPH CRUISE          14.4     0.01            644.0
          SEQ#11 HIGHWAY FUEL ECON.      0.14    4.1    575.4     2.54              15.2
          SEQ#11 4 SPD IDLE (NEUT)      82.7     2.87             68.0
          SEQ#11 4 SPD IDLE (2500)      13.1     0.01            224.7
          SEQ#11 4 SPD IDLE (NEUT)      67.5     2.57             69.4
          SEQ#11 4 SPD IDLE (DRIV)     115.8     2.30             98.8
          SEQ#11 FED 2 MODE (30)        14.4     0.01            380.1
          SEQ#11 FED 2 MODE (NEUT)      68.8     2.15             69.4
         NO FOLLOW UP LANE TEST DONE

         COMMENT : REPLACED AIR FILTER ELEMENT AND VACUUM DIAPHRAGM.
                    0 RPM PROPANE GAIN IN PREADJUSTMENT.  50 RPM
                   PROPANE GAIN IN CARB.  ADJUSTMENT PROCEDURE.

         SEQ#12 FEDERAL TEST PROC.       1.69   27.6    858.9     2.74               9.8
         SEQ#12 50 MPH CRUISE            0.3     0.01            722.8
         SEQ#12 HIGHWAY FUEL ECON.       0.18    6.1    609.7     2.63              14.3
         SEQ#12 4 SPD IDLE (NEUT)       39.4     0.00             65.6
         SEQ#12 4 SPD IDLE (2500)        0.0     0.00            262.8
         SEQ#12 4 SPD IDLE (NEUT)        2.0     0.00             66.8
         SEQ#12 4 SPD IDLE (DRIV)       11.8     0.00             73.7
         SEQ#12 FED 2 MODE (30)          0.0     0.00            284.1
         SEQ#12 FED 2 MODE (NEUT)       15.1     0.00             54.7
        NO FOLLOW UP LANE TEST DONE

        COMMENT : ADJUSTED IDLE RPM & IDLE CO AT STEP 5 OF CO
                  ADJUSTMENTS.  CURB IDLE 750 N  & CO TO .4%.

        SEQ#13 FEDERAL TEST PROC.        1.12   14.1    798.4     2.99              10.8
        SEQ#13 50 MPH CRUISE             0.0     0.00            832.0
        SEQ#13 HIGHWAY FUEL ECON.        0.20    5.8    530.3     2.14              16.4
        SEQ#13 4 SPD IDLE (NEUT)       106.5     0.00             47.5
        SEQ#13 4 SPD IDLE (2500)         0.0     0.00            223.2
        SEQ#13 4 SPD IDLE (NEUT)         4.9     0.00             54.4
        SEQ#13 4 SPD IDLE (DRIV)        11.5     0.00             68.3
        SEQ#13 FED 2 MODE (30)           0.0     0.00            325.5
        SEQ#13 FED 2 MODE (NEUT)        51.6     0.00             52.0
       NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                  EMISSION RESULTS                  FUEL
                                        ---------- GRAMS / MILE ----------          ECON
VEH.
 NO.  YR MAKE CID    ENGINE FAMILY         HC      CO      CO2      NOxc    CH4     MPG
----  -- ---- --- ------------------     ----    ----    -----    -----   ----    ----
5479  75 PLYM 400 F-B2-C    (CON'T)

           COMMENT : ADJUSTED IDLE MIXTURE TO MANUFACTURERS SPEC AT
                     750 RPM.

           SEQ#15 FEDERAL TEST PROC.     1.14    11.5    806.2    2.99             10.7
           SEQ#15 50 MPH CRUISE          0.0     0.00            818.9
           SEQ#15 HIGHWAY FUEL ECON.     0.12     3.1    535.4    2.37             16.4
           SEQ#15 4 SPD IDLE (NEUT)    118.4     0.00             51.9
           SEQ#15 4 SPD IDLE (2500)      0.0     0.00            216.8
           SEQ#15 4 SPD IDLE (NEUT)     12.1     0.00             56.4
           SEQ#15 4 SPD IDLE (DRIV)     18.7     0.00             74.4
           SEQ#15 FED 2 MODE (30)        0.0     0.00            273.0
           SEQ#15 FED 2 MODE (NEUT)    136.7     0.00             50.9

           NO FOLLOW UP LANE TEST DONE

           COMMENT : REPLACED; SPARK PLUGS, ENGINE OIL, PCV VALVE, HOT
                     AIR INLET TUBE,  AIR  OIL  FUEL  CRANKCASE
                     BREATHER & CARBON CANISTER  FILTERS.  ADJUSTED
                     TIMING, IDLE MIXTURE AND IDLE SPEED.

           SEQ#16 FEDERAL TEST PROC.     1.10    12.6    848.2    3.28             10.2
           SEQ#16 50 MPH CRUISE          3.3     0.01           1092.1
           SEQ#16 HIGHWAY FUEL ECON.     0.08     0.9    535.6    5.18             16.5
           SEQ#16 4 SPD IDLE (NEUT)     42.1     0.00             49.4
           SEQ#16 4 SPD IDLE (2500)      0.0     0.01            261.8
           SEQ#16 4 SPD IDLE (NEUT)     11.2     0.00             47.6
           SEQ#16 4 SPD IDLE (DRIV)     23.6     0.00             52.1
           SEQ#16 FED 2 MODE (30)        7.5     0.01            330.6
           SEQ#16 FED 2 MODE (NEUT)     61.2     0.00             44.7

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   25  CO:  0.03   GAIN: 142

5480  75 CHRY 400 F-B4-C

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  102  CO:  4.25   GAIN:   5

           SEQ#11 FEDERAL TEST PROC.    10.08   177.0    711.1    1.61              8.7
           SEQ#11 50 MPH CRUISE        123.1     3.42            631.8
           SEQ#11 HIGHWAY FUEL ECON.     2.53    63.2    449.4    2.28             15.9
           SEQ#11 4 SPD IDLE (NEUT)     87.6     4.51             69.3
           SEQ#11 4 SPD IDLE (2500)     54.3     3.05            199.6
           SEQ#11 4 SPD IDLE (NEUT)    114.5     6.27             63.8
           SEQ#11 4 SPD IDLE (DRIV)    154.0     6.83             64.4
           SEQ#11 FED 2 MODE (30)      197.0     3.38            269.9
           SEQ#11 FED 2 MODE (NEUT)    112.5     5.62             63.5

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                      FUEL
VEH.                                        --------- GRAMS / MILE ----------              ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO       CO2     NOxc    CH4      MPG
----   -- ---- ---  -----------------       -----   ----    -----    ----    ----     ----
5480   75 CHRY 400  F-B4-C     (CON'T)

       COMMENT : REPLACED VACUUM BREAK DIAPHRAGM IN PRE-
                 ADJUSTMENT.50 RPM PROPANE GAIN ACHEIVED AT STEP 8
                 OF PROPANE CARBURETOR ADJUSTMENT PROCEDURE A-
                 2.IDLE RPM 750,WITH PROPANE 800 RPM.

       SEQ#12 FEDERAL TEST PROC.     4.15    85.9    705.5     1.65            10.4
       SEQ#12 50 MPH CRUISE        113.1     2.13            657.1
       SEQ#12 HIGHWAY FUEL ECON.     2.32    49.2    465.4     2.44            16.1
       SEQ#12 4 SPD IDLE (NEUT)     80.0     0.74             57.9
       SEQ#12 4 SPD IDLE (2500)     55.3     3.18            190.4
       SEQ#12 4 SPD IDLE (NEUT)     77.7     1.52             60.8
       SEQ#12 4 SPD IDLE (DRIV)     97.2     1.53             74.4
       SEQ#12 FED 2 MODE (30)      186.4     3.14            295.2
       SEQ#12 FED 2 MODE (NEUT)     82.0     0.48             59.7

       FOLLOW UP LANE TEST:
       CAT: P    FUEL: P
       HC:    79  CO:   1.52   GAIN:  60

       COMMENT : ADJUSTED IDLE CO TO .5% AT STEP 5 OF IDLE CO
                 CARBURETOR ADJUSTMENT PROCEDURE A-2.IDLE RPM 730,
                 CO .5%.

       SEQ#13 FEDERAL TEST PROC.     4.11    89.0    725.7     1.76            10.1
       SEQ#13 50 MPH CRUISE        116.1     1.96            769.3
       SEQ#13 HIGHWAY FUEL ECON.     2.18    43.2    471.4     2.78            16.3
       SEQ#13 4 SPD IDLE (NEUT)     41.1     0.22             54.4
       SEQ#13 4 SPD IDLE (2500)     50.3     2.72            193.9
       SEQ#13 4 SPD IDLE (NEUT)     48.3     0.36             59.4
       SEQ#13 4 SPD IDLE (DRIV)     65.2     0.49             74.1
       SEQ#13 FED 2 MODE (30)      172.7     2.50            402.4
       SEQ#13 FED 2 MODE (NEUT)     57.2     0.21             58.3

       FOLLOW UP LANE TEST:
       CAT: P    FUEL: P
       HC:    49  CO:   0.35   GAIN: 100

       COMMENT : ADJUSTED IDLE MIXTURE TO .3%.

       SEQ#15 FEDERAL TEST PROC.     4.56    88.9    772.0     2.00             9.6
       SEQ#15 50 MPH CRUISE        193.4     2.13            788.5
       SEQ#15 HIGHWAY FUEL ECON.     2.33    48.6    468.9     2.78            16.1
       SEQ#15 4 SPD IDLE (NEUT)     57.2     0.29             68.5
       SEQ#15 4 SPD IDLE (2500)     73.4     3.22            186.8
       SEQ#15 4 SPD IDLE (NEUT)     33.5     0.40             66.5
       SEQ#15 4 SPD IDLE (DRIV)     37.1     0.13             86.8
       SEQ#15 FED 2 MODE (30)      178.0     2.36            380.1
       SEQ#15 FED 2 MODE (NEUT)     34.8     0.10             64.1

       FOLLOW UP LANE TEST:
       CAT: P    FUEL: P
       HC:    33  CO:   0.39   GAIN: 130
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2

                                                         EMISSION RESULTS                  FUEL
VEH.                                            --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID   ENGINE FAMILY              HC      CO      CO2     NOxc     CH4      MPG
----   -- ---- ---  -----------------          -----   -----   ------   -----    -----    ----
5480   75 CHRY 400 F-B4-C     (CON'T)

         COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,PCV VALVE,AIR
                   FILTER,FUEL FILTER,OIL & OIL FILTER,CANISTER
                   FILTER,PCV FILTER.ADJUSTED IDLE NEUTRAL TO 750
                   RPM,CO TO .3%.

         SEQ#16 FEDERAL TEST PROC.      3.90    69.6    738.1     2.03              10.3
         SEQ#16 50 MPH CRUISE         123.4     2.00            844.1
         SEQ#16 HIGHWAY FUEL ECON.      2.20    42.0    457.6     3.08              16.7
         SEQ#16 4 SPD IDLE (NEUT)      33.5     0.26             61.3
         SEQ#16 4 SPD IDLE (2500)     312.2     1.88            254.8
         SEQ#16 4 SPD IDLE (NEUT)      46.0     0.16             58.3
         SEQ#16 4 SPD IDLE (DRIV)      60.9     0.25             76.4
         SEQ#16 FED 2 MODE (30)       198.7     2.76            459.0
         SEQ#16 FED 2 MODE (NEUT)      63.8     0.06             60.4

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:   46  CO:  0.17   GAIN:  80

5482   75 FORD 140 2.3"A"EGRAIR

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:   93  CO:  3.97   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.      3.20    55.4    458.1     1.71              16.0
         SEQ#11 50 MPH CRUISE           7.9     0.18            376.1
         SEQ#11 HIGHWAY FUEL ECON.      0.56     7.7    370.6     1.87              23.1
         SEQ#11 4 SPD IDLE (NEUT)      93.3     3.51             41.4
         SEQ#11 4 SPD IDLE (2500)      35.5     2.05             82.1
         SEQ#11 4 SPD IDLE (NEUT)      88.6     3.26             42.4
         SEQ#11 4 SPD IDLE (DRIV)     120.4     3.26             55.3
         SEQ#11 FED 2 MODE (30)        29.2     0.23            698.6
         SEQ#11 FED 2 MODE (NEUT)      82.3     3.12             43.4

         NO FOLLOW UP LANE TEST DONE

         COMMENT : 50 RPM GAIN OBTAINED AT STEP 6C OF PROPANE
                   ADJUSTMENT PROCEDURE A-1.  IDLE RPM 880 NEUTRAL,
                   WITH PROPANE 930 RPM, TIGHTENING OF CARBURETOR
                   BASEPLATE BOLTS WAS NECESSARY TO OBTAIN CORRECT
                   ADJUSTMENT.

         SEQ#12 FEDERAL TEST PROC.      2.85    45.0    453.3     1.69              16.7
         SEQ#12 50 MPH CRUISE          33.5     0.24            451.9
         SEQ#12 HIGHWAY FUEL ECON.      0.67     7.9    357.9     2.15              23.8
         SEQ#12 4 SPD IDLE (NEUT)     122.1     1.70             46.4
         SEQ#12 4 SPD IDLE (2500)      54.9     2.66             86.5
         SEQ#12 4 SPD IDLE (NEUT)     186.0     0.72             46.7
         SEQ#12 4 SPD IDLE (DRIV)     160.3     1.10             56.9
         SEQ#12 FED 2 MODE (30)        47.4     0.54            679.3
         SEQ#12 FED 2 MODE (NEUT)     157.0     1.62             46.1

         NO FOLLOW UP LANE TEST DONE


   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                EMISSION RESULTS                  FUEL
VEH.                                  --------- GRAMS / MILE ----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY     HC      CO       CO2     NOxc    CH4       MPG
----  -- ---- --- ----------------   -----   -----   ------   -----    ----      ----
5482  75 FORD 140 2.3"A"EGRAIR     (CON'T)

          COMMENT : IDLE MIXTURE FLUCTUATES FROM .4% TO .7%, IDLE
                    SPEED FLUCTUATES FROM 860 TO 900 RPM.  CO OF .5%
                    WAS ACHEIVED AT STEP 4C OF IDLE CO ADJUSTMENT
                    PROCEDURE, A-1.

          SEQ#13 FEDERAL TEST PROC.   2.29    44.1    449.1    1.67              16.9
          SEQ#13 50 MPH CRUISE        18.1    0.24           465.0
          SEQ#13 HIGHWAY FUEL ECON.   0.62     8.0    349.4    2.01              24.4
          SEQ#13 4 SPD IDLE (NEUT)   221.8    0.91             52.1
          SEQ#13 4 SPD IDLE (2500)    56.6    2.34            100.6
          SEQ#13 4 SPD IDLE (NEUT)   199.8    0.88             52.2
          SEQ#13 4 SPD IDLE (DRIV)   168.4    0.96             70.6
          SEQ#13 FED 2 MODE (30)      40.8    0.31            844.1
          SEQ#13 FED 2 MODE (NEUT)   128.4    1.47             50.7

          NO FOLLOW UP LANE TEST DONE


          COMMENT : ADJUSTED IDLE MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.   2.30    40.7    451.4    1.58              17.0
          SEQ#15 50 MPH CRUISE        17.4    0.20            455.9
          SEQ#15 HIGHWAY FUEL ECON.   0.51     7.1    360.6    1.97              23.8
          SEQ#15 4 SPD IDLE (NEUT)   227.2    1.39             45.8
          SEQ#15 4 SPD IDLE (2500)    52.6    2.25             85.3
          SEQ#15 4 SPD IDLE (NEUT)   466.4    0.86             44.0
          SEQ#15 4 SPD IDLE (DRIV)   165.3    0.72             64.5
          SEQ#15 FED 2 MODE (30)      37.8    0.28            711.7
          SEQ#15 FED 2 MODE (NEUT)   288.7    1.17             48.9

          NO FOLLOW UP LANE TEST DONE


          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                    AND OIL FILTERS, CRANKCASE BREATHER FILTERS, PCV
                    VALVE, ENGINE OIL, SPARK PLUG WIRES.  ADJUSTED
                    FAST IDLE RPM, AND IDLE SPEED AND MIXTURE.

          SEQ#16 FEDERAL TEST PROC.   2.26    41.8    434.8    1.85              17.5
          SEQ#16 50 MPH CRUISE        36.5    0.40            535.8
          SEQ#16 HIGHWAY FUEL ECON.   0.71     9.8    350.1    2.55              24.1
          SEQ#16 4 SPD IDLE (NEUT)   273.8    1.05             51.9
          SEQ#16 4 SPD IDLE (2500)    60.2    2.20             96.2
          SEQ#16 4 SPD IDLE (NEUT)   424.7    0.50             51.7
          SEQ#16 4 SPD IDLE (DRIV)   176.8    0.64             74.8
          SEQ#16 FED 2 MODE (30)      66.8    0.91            640.9
          SEQ#16 FED 2 MODE (NEUT)   229.3    1.03             50.1

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  142   CO:  0.71    GAIN:  28
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                    FUEL
VEH.                                       ---------- GRAMS / MILE ----------             ECON
 NO.   YR MAKE CID     ENGINE FAMILY        HC       CO      CO2     NOxc     CH4    MPG
----   -- ---- --- -----------------       -----    -----   ------   -----    ---    ---
5484   75 FORD 250 250 1CEF

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: F
          HC:   51  CO:  0.02   GAIN:  50

          SEQ#11 FEDERAL TEST PROC.      1.96      4.0    640.6    4.05            13.6
          SEQ#11 50 MPH CRUISE           24.0     0.02            463.0
          SEQ#11 HIGHWAY FUEL ECON.      0.43      1.3    493.4    2.74            17.9
          SEQ#11 4 SPD IDLE (NEUT)      113.1     0.01             69.5
          SEQ#11 4 SPD IDLE (2500)       27.3     0.01            227.5
          SEQ#11 4 SPD IDLE (NEUT)      109.5     0.01             56.8
          SEQ#11 4 SPD IDLE (DRIV)      219.8     0.02            241.6
          SEQ#11 FED 2 MODE (30)        101.5     0.01            917.9
          SEQ#11 FED 2 MODE (NEUT)       87.0     0.01             71.0

          NO FOLLOW UP LANE TEST DONE


          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                    FILTER, PCV VALVE AND FILTER, FUEL FILTER,
                    COOLANT TEMPERATURE SWITCH TO EGR.  SET TO
                    MANUFACTURER SPEC.

          SEQ#16 FEDERAL TEST PROC.      2.40      5.2    622.3    4.20            13.9
          SEQ#16 50 MPH CRUISE           45.7     0.03            742.0
          SEQ#16 HIGHWAY FUEL ECON.      0.59      1.1    457.2    4.83            19.3
          SEQ#16 4 SPD IDLE (NEUT)      241.3     0.01             74.9
          SEQ#16 4 SPD IDLE (2500)       40.4     0.01            243.6
          SEQ#16 4 SPD IDLE (NEUT)      607.7     0.02             62.9
          SEQ#16 4 SPD IDLE (DRIV)      216.8     0.00            330.6
          SEQ#16 FED 2 MODE (30)        108.5     0.01            664.2
          SEQ#16 FED 2 MODE (NEUT)      630.3     0.02             56.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: F
          HC:   92  CO:  0.02   GAIN: 150

5485   75 FORD 250 250 1CEF

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  246  CO:  6.30   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.      1.53     36.6    562.8    5.90            14.2
          SEQ#11 50 MPH CRUISE            4.9     0.01           1224.9
          SEQ#11 HIGHWAY FUEL ECON.      0.23      2.2    457.6    5.72            19.2
          SEQ#11 4 SPD IDLE (NEUT)      255.4     5.57             64.8
          SEQ#11 4 SPD IDLE (2500)       12.5     0.02            374.0
          SEQ#11 4 SPD IDLE (NEUT)      277.2     6.13             61.8
          SEQ#11 4 SPD IDLE (DRIV)      252.3     6.13            104.2
          SEQ#11 FED 2 MODE (30)         28.9     0.01           1227.4
          SEQ#11 FED 2 MODE (NEUT)      274.5     5.13             66.8

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE					FUEL ECON
					HC	CO	CO_2	NO_{xc}	CH_4	MPG
5485	75	FORD	250	250 1CEF (CON'T)						
				COMMENT : ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 50 RPM.						
				SEQ#12 FEDERAL TEST PROC.	0.86	7.3	583.1	4.96		14.9
				SEQ#12 50 MPH CRUISE	5.9	0.01		673.3		
				SEQ#12 HIGHWAY FUEL ECON.	0.17	0.9	465.6	4.24		19.0
				SEQ#12 4 SPD IDLE (NEUT)	42.1	0.02		71.7		
				SEQ#12 4 SPD IDLE (2500)	82.3	0.01		136.0		
				SEQ#12 4 SPD IDLE (NEUT)	20.0	0.01		83.1		
				SEQ#12 4 SPD IDLE (DRIV)	12.8	0.09		104.4		
				SEQ#12 FED 2 MODE (30)	22.3	0.01		467.0		
				SEQ#12 FED 2 MODE (NEUT)	52.6	0.01		89.9		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 60 RPM.						
				SEQ#15 FEDERAL TEST PROC.	0.63	2.9	572.9	4.73		15.3
				SEQ#15 50 MPH CRUISE	5.9	0.01		572.2		
				SEQ#15 HIGHWAY FUEL ECON.	0.26	0.4	457.8	3.79		19.3
				SEQ#15 4 SPD IDLE (NEUT)	289.1	0.01		108.0		
				SEQ#15 4 SPD IDLE (2500)	104.9	0.02		112.2		
				SEQ#15 4 SPD IDLE (NEUT)	43.4	0.01		106.5		
				SEQ#15 4 SPD IDLE (DRIV)	8.2	0.01		328.6		
				SEQ#15 FED 2 MODE (30)	29.6	0.01		403.4		
				SEQ#15 FED 2 MODE (NEUT)	116.8	0.01		142.6		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, OIL, PCV, FUEL FILTERS, PCV VALVE, ENGINE OIL. ADJUSTED TIMING TO SPEC.						
				SEQ#16 FEDERAL TEST PROC.	0.55	5.1	648.2	2.73		13.5
				SEQ#16 50 MPH CRUISE	0.0	0.01		400.3		
				SEQ#16 HIGHWAY FUEL ECON.	0.07	0.5	537.0	2.45		16.5
				SEQ#16 4 SPD IDLE (NEUT)	86.0	0.00		62.8		
				SEQ#16 4 SPD IDLE (2500)	15.8	0.01		90.9		
				SEQ#16 4 SPD IDLE (NEUT)	26.0	0.00		72.7		
				SEQ#16 4 SPD IDLE (DRIV)	5.6	0.00		150.8		
				SEQ#16 FED 2 MODE (30)	3.3	0.01		225.4		
				SEQ#16 FED 2 MODE (NEUT)	46.4	0.00		71.8		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 50 CO: 0.02 GAIN: 190						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
5487	75	FORD	351	351W "A"

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 103 CO: 5.19 GAIN: 0

	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	3.39	69.3	723.9	3.09		10.5
SEQ#11 50 MPH CRUISE	20.7	0.30		840.1		
SEQ#11 HIGHWAY FUEL ECON.	1.04	13.2	514.8	5.07		16.5
SEQ#11 4 SPD IDLE (NEUT)	63.5	2.49		60.1		
SEQ#11 4 SPD IDLE (2500)	6.6	0.20		243.7		
SEQ#11 4 SPD IDLE (NEUT)	114.8	4.51		63.8		
SEQ#11 4 SPD IDLE (DRIV)	127.1	5.27		85.9		
SEQ#11 FED 2 MODE (30)	8.5	0.13		333.6		
SEQ#11 FED 2 MODE (NEUT)	65.2	2.91		59.2		

NO FOLLOW UP LANE TEST DONE

COMMENT : NO MAINTENANCE PERFORMED DURING PRE-ADJUSTMENT. ADJUSTED IDLE MIXTURE TO 50 RPM PROPANE GAIN AT STEP 7C OF PROPANE ADJUSTMENT PROCEDURE A-2.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	1.95	38.4	799.2	3.13		10.3
SEQ#12 50 MPH CRUISE	24.6	0.45		746.5		
SEQ#12 HIGHWAY FUEL ECON.	0.82	16.1	565.6	3.99		15.0
SEQ#12 4 SPD IDLE (NEUT)	55.9	1.44		82.6		
SEQ#12 4 SPD IDLE (2500)	7.9	0.38		190.4		
SEQ#12 4 SPD IDLE (NEUT)	39.1	1.08		88.3		
SEQ#12 4 SPD IDLE (DRIV)	82.3	1.55		124.2		
SEQ#12 FED 2 MODE (30)	14.1	0.24		360.9		
SEQ#12 FED 2 MODE (NEUT)	44.1	0.86		86.1		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE CO AT .3% ON HOOK UP AND OBTAINED .5% CO IN IDLE CO CARBURETOR ADJUSTMENT STEP 5.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	1.87	29.4	793.9	3.03		10.5
SEQ#13 50 MPH CRUISE	31.2	0.38		624.8		
SEQ#13 HIGHWAY FUEL ECON.	0.72	10.9	572.5	3.86		15.0
SEQ#13 4 SPD IDLE (NEUT)	40.4	0.79		87.2		
SEQ#13 4 SPD IDLE (2500)	9.5	0.28		205.0		
SEQ#13 4 SPD IDLE (NEUT)	44.7	0.49		90.9		
SEQ#13 4 SPD IDLE (DRIV)	64.2	0.84		143.7		
SEQ#13 FED 2 MODE (30)	13.5	0.17		359.9		
SEQ#13 FED 2 MODE (NEUT)	31.2	0.42		89.9		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                     EMISSION RESULTS                FUEL
VEH.                                         ---------- GRAMS / MILE ----------      ECON
 NO.   YR MAKE CID     ENGINE FAMILY      HC      CO      CO2     NOxc     CH4     MPG
----   -- ---- --- -----------------    -----   -----   ------   -----    -----    ----
5487   75 FORD 351 351W "A"     (CON'T)

          COMMENT : ADJUSTED IDLE DRIVE 650 PROPANE GAIN 60 RPM.

          SEQ#15 FEDERAL TEST PROC.     1.45    23.5    814.6    3.28              10.4
          SEQ#15 50 MPH CRUISE         15.1     0.35            *695.5
          SEQ#15 HIGHWAY FUEL ECON.     0.70    12.9    584.0    4.88              14.6
          SEQ#15 4 SPD IDLE (NEUT)     11.8     0.21            115.7
          SEQ#15 4 SPD IDLE (2500)      2.3     0.15            212.7
          SEQ#15 4 SPD IDLE (NEUT)      5.9     0.18            107.7
          SEQ#15 4 SPD IDLE (DRIV)     26.6     0.20            234.0
          SEQ#15 FED 2 MODE (30)        5.9     0.12            371.0
          SEQ#15 FED 2 MODE (NEUT)      6.9     0.20            112.1

          NO FOLLOW UP LANE TEST DONE

          COMMENT : REPLACED OIL FILTER,SPARK PLUGS,PCV FILTER,OIL &
                    FILTER,PCV VALVE,EGR VALVE,FUEL FILTER,EGR TEMP
                    SENSOR VALVE,HOT & FRESH AIR TUBING,RESET CHOKE
                    SPRING TO SPEC,ADJUSTED CURB IDLE TO 650 DR.,
                    TIMING AT 4 AND FAST IDLE SET TO 1400 N.

          SEQ#16 FEDERAL TEST PROC.     1.99    19.8    726.5    2.12              11.6
          SEQ#16 50 MPH CRUISE         13.1     0.20            273.0
          SEQ#16 HIGHWAY FUEL ECON.     0.73     5.8    550.5    2.03              15.8
          SEQ#16 4 SPD IDLE (NEUT)     55.9     0.32             77.0
          SEQ#16 4 SPD IDLE (2500)     10.8     0.12            160.1
          SEQ#16 4 SPD IDLE (NEUT)     24.6     0.30             81.3
          SEQ#16 4 SPD IDLE (DRIV)     82.0     0.37            150.3
          SEQ#16 FED 2 MODE (30)       11.2     0.10            313.4
          SEQ#16 FED 2 MODE (NEUT)     52.6     0.30             78.5

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   56  CO:  0.61   GAIN:  68

5488   75 FORD 351 351W 1CET

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  215  CO:  5.84   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     2.73    49.5    634.2    5.41              12.3
          SEQ#11 50 MPH CRUISE         35.2     0.17           1993.9
          SEQ#11 HIGHWAY FUEL ECON.     0.88     9.0    493.5    7.54              17.4
          SEQ#11 4 SPD IDLE (NEUT)    131.1     2.27             59.5
          SEQ#11 4 SPD IDLE (2500)      7.2     0.12            327.5
          SEQ#11 4 SPD IDLE (NEUT)    136.7     3.14             59.6
          SEQ#11 4 SPD IDLE (DRIV)    223.2     3.20             80.3
          SEQ#11 FED 2 MODE (30)       49.0     0.41            535.8
          SEQ#11 FED 2 MODE (NEUT)    139.7     3.00             60.1

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

					EMISSION RESULTS GRAMS / MILE					FUEL ECON
VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	HC	CO	CO_2	NO_{xc}	CH_4	MPG
5488	75	FORD	351	351W 1CET (CON'T)						
				COMMENT : IDLE DRIVE 650 RPM, PROPANE GAIN 50 RPM.						
				SEQ#12 FEDERAL TEST PROC.	1.96	17.3	690.4	5.89		12.3
				SEQ#12 50 MPH CRUISE	31.5	0.13		2151.7		
				SEQ#12 HIGHWAY FUEL ECON.	0.73	4.7	494.9	8.21		17.6
				SEQ#12 4 SPD IDLE (NEUT)	203.4	0.12		72.4		
				SEQ#12 4 SPD IDLE (2500)	7.2	0.08		308.3		
				SEQ#12 4 SPD IDLE (NEUT)	127.7	0.20		78.0		
				SEQ#12 4 SPD IDLE (DRIV)	90.3	0.21		177.3		
				SEQ#12 FED 2 MODE (30)	28.9	0.15		538.8		
				SEQ#12 FED 2 MODE (NEUT)	148.7	0.20		71.6		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : IDLE DRIVE 650 RPM, CO .4%.						
				SEQ#13 FEDERAL TEST PROC.	2.07	14.5	708.1	5.24		12.0
				SEQ#13 50 MPH CRUISE	23.6	0.14		1695.8		
				SEQ#13 HIGHWAY FUEL ECON.	0.66	4.7	495.5	7.12		17.6
				SEQ#13 4 SPD IDLE (NEUT)	293.5	0.09		62.6		
				SEQ#13 4 SPD IDLE (2500)	13.1	0.09		283.1		
				SEQ#13 4 SPD IDLE (NEUT)	179.0	0.16		71.2		
				SEQ#13 4 SPD IDLE (DRIV)	88.0	0.14		138.3		
				SEQ#13 FED 2 MODE (30)	23.3	0.13		463.0		
				SEQ#13 FED 2 MODE (NEUT)	258.1	0.14		65.5		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.						
				SEQ#15 FEDERAL TEST PROC.	1.75	15.6	699.8	5.23		12.2
				SEQ#15 50 MPH CRUISE	26.9	0.13		1836.1		
				SEQ#15 HIGHWAY FUEL ECON.	0.70	5.0	499.9	7.38		17.4
				SEQ#15 4 SPD IDLE (NEUT)	169.0	0.15		68.4		
				SEQ#15 4 SPD IDLE (2500)	3.9	0.13		299.2		
				SEQ#15 4 SPD IDLE (NEUT)	119.1	0.18		71.8		
				SEQ#15 4 SPD IDLE (DRIV)	77.4	0.15		144.7		
				SEQ#15 FED 2 MODE (30)	25.3	0.13		456.9		
				SEQ#15 FED 2 MODE (NEUT)	177.7	0.16		67.5		
				NO FOLLOW UP LANE TEST DONE						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

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                                                        EMISSION RESULTS                    FUEL
VEH.                                          --------- GRAMS / MILE ----------            ECON
 NO.  YR MAKE CID    ENGINE FAMILY             HC       CO      CO2     NOxc     CH4       MPG
----  -- ---- --- ------------------        -----   -----   ------   ------   ----       ----
5488  75 FORD 351 351W 1CET     (CON'T)

         COMMENT : MAJOR TUNE-UP.  REPLACED AIR, FUEL, OIL AND
                   CRANKCASE BREATHER FILTERS, SPARK PLUGS, PCV
                   VALVE, ENGINE OIL, EGR COOLANT TEMP SWITCH, HOT
                   AND COLD AIR DUCTS.  NO ADJUSTMENTS WERE NECESSARY.

         SEQ#16 FEDERAL TEST PROC.      1.63     8.8    711.3    2.52               12.2
         SEQ#16 50 MPH CRUISE           18.1    0.09           450.9
         SEQ#16 HIGHWAY FUEL ECON.      0.61     3.3    500.7    2.97               17.5
         SEQ#16 4 SPD IDLE (NEUT)      410.4    0.10             62.0
         SEQ#16 4 SPD IDLE (2500)       72.1    0.11            122.9
         SEQ#16 4 SPD IDLE (NEUT)      270.5    0.10             68.0
         SEQ#16 4 SPD IDLE (DRIV)       92.3    0.06            147.8
         SEQ#16 FED 2 MODE (30)         26.0    0.09            429.6
         SEQ#16 FED 2 MODE (NEUT)      368.3    0.08             54.6

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  166  CO:  0.09   GAIN:  40

5489  75 FORD 400 351M/4001CET

         PRELIMINARY LANE TEST:
         CAT: P    FUEL: P
         HC:  121  CO:  3.25   GAIN:   0

         SEQ#11 FEDERAL TEST PROC.      2.19    42.8    818.2    1.29                9.9
         SEQ#11 50 MPH CRUISE            7.2    0.07            121.6
         SEQ#11 HIGHWAY FUEL ECON.      0.37     6.6    654.6    1.24               13.3
         SFQ#11 4 SPD IDLE (NEUT)       69.8    1.04             38.2
         SEQ#11 4 SPD IDLE (2500)        3.0    0.07             68.0
         SEQ#11 4 SPD IDLE (NEUT)       71.8    0.97             41.1
         SEQ#11 4 SPD IDLE (DRIV)       75.4    0.87             51.7
         SEQ#11 FED 2 MODE (30)          9.8    0.05            134.9
         SEQ#11 FED 2 MODE (NEUT)       79.4    0.91             36.1

         NO FOLLOW UP LANE TEST DONE

         COMMENT : IDLE DRIVE 650 RPM, PROPANE GAIN 15 RPM.

         SEQ#15 FEDERAL TEST PROC.      2.23    25.3    866.9    1.52                9.7
         SEQ#15 50 MPH CRUISE            6.9    0.04            116.2
         SEQ#15 HIGHWAY FUEL ECON.      0.28     3.7    655.2    1.55               13.4
         SEQ#15 4 SPD IDLE (NEUT)      450.4    0.22             36.8
         SEQ#15 4 SPD IDLE (2500)       24.6    0.04             63.3
         SEQ#15 4 SPD IDLE (NEUT)      302.2    0.24             39.0
         SEQ#15 4 SPD IDLE (DRIV)       82.3    0.17             57.4
         SEQ#15 FED 2 MODE (30)         22.7    0.04            128.3
         SEQ#15 FED 2 MODE (NEUT)      405.9    0.26             33.8

         FOLLOW UP LANE TEST:
         CAT: P    FUEL: P
         HC:  350  CO:  1.37   GAIN: 140
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE					FUEL ECON MPG
					HC	CO	CO_2	NO_{xc}	CH_4	
5489	75	FORD	400	351M/4001CET (CON'T)						
				COMMENT : MAJOR TUNE-UP. REPLACED AIR, FUEL, OIL AND CRANKCASE BREATHER FILTERS, SPARK PLUGS, PCV VALVE, HOT AIR DUCT, ENGINE OIL, SEVERAL VACUUM LINES.						
				SEQ#16 FEDERAL TEST PROC.	1.92	18.2	874.5	1.62		9.8
				SEQ#16 50 MPH CRUISE	4.6	0.04		125.2		
				SEQ#16 HIGHWAY FUEL ECON.	0.23	2.9	646.7	1.42		13.6
				SEQ#16 4 SPD IDLE (NEUT)	295.6	0.24		38.6		
				SEQ#16 4 SPD IDLE (2500)	38.5	0.05		59.1		
				SEQ#16 4 SPD IDLE (NEUT)	180.3	0.24		45.0		
				SEQ#16 4 SPD IDLE (DRIV)	73.4	0.17		67.2		
				SEQ#16 FED 2 MODE (30)	13.1	0.04		96.7		
				SEQ#16 FED 2 MODE (NEUT)	379.3	0.29		36.1		
				FOLLOW UP LANE TEST: CAT: P FUEL: P HC: 174 CO: 1.19 GAIN: 175						
5491	75	FORD	351	351M/4001CET						
				PRELIMINARY LANE TEST: CAT: P FUEL: P HC: 500 CO: 0.67 GAIN: 20						
				SEQ#11 FEDERAL TEST PROC.	4.63	115.6	915.4	1.80		8.0
				SEQ#11 50 MPH CRUISE	0.0	0.33		357.9		
				SEQ#11 HIGHWAY FUEL ECON.	1.22	44.3	742.4	2.17		10.9
				SEQ#11 4 SPD IDLE (NEUT)	339.6	0.44		46.4		
				SEQ#11 4 SPD IDLE (2500)	8.9	0.05		154.2		
				SEQ#11 4 SPD IDLE (NEUT)	260.6	0.16		50.6		
				SEQ#11 4 SPD IDLE (DRIV)	200.4	0.08		56.4		
				SEQ#11 FED 2 MODE (30)	11.2	0.32		270.9		
				SEQ#11 FED 2 MODE (NEUT)	341.8	0.22		46.2		
				NO FOLLOW UP LANE TEST DONE						
				COMMENT : IDLE NEUTRAL 500 RPM, CO .3%						
				SEQ#13 FEDERAL TEST PROC.	3.62	90.9	951.1	1.75		8.0
				SEQ#13 50 MPH CRUISE	11.2	0.77		345.7		
				SEQ#13 HIGHWAY FUEL ECON.	1.38	59.9	725.6	1.90		10.8
				SEQ#13 4 SPD IDLE (NEUT)	535.5	0.39		45.1		
				SEQ#13 4 SPD IDLE (2500)	11.5	0.03		165.2		
				SEQ#13 4 SPD IDLE (NEUT)	370.5	0.40		51.5		
				SEQ#13 4 SPD IDLE (DRIV)	275.9	0.33		60.9		
				SEQ#13 FED 2 MODE (30)	20.0	0.34		263.9		
				SEQ#13 FED 2 MODE (NEUT)	466.0	0.29		42.6		
				NO FOLLOW UP LANE TEST DONE						

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.
                          TEXAS PILOT I/M STUDY

                         LISTING OF TEST RESULTS
                               HOUSTON #2

                                                   EMISSION RESULTS                 FUEL
VEH.                                      ---------- GRAMS / MILE ----------        ECON
 NO.  YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4     MPG
----  -- ---- --- -----------------     -----   -----  ------   -----   ----     ---
5491  75 FORD 351 351M/4001CET    (CON'T)

         COMMENT : IDLE DRIVE ADJUSTED 650 RPM, TIMING SET TO +8, CO
                   IS BELOW .5%.

         SEQ#14 FEDERAL TEST PROC.  25.25    42.7   877.0    2.35              8.7
         SEQ#14 50 MPH CRUISE       1748.3   0.14           439.8
         SEQ#14 HIGHWAY FUEL ECON.  18.66    20.5   645.1    2.66             12.1
         SEQ#14 4 SPD IDLE (NEUT)   1566.5   0.11            46.2
         SEQ#14 4 SPD IDLE (2500)   1334.1   0.11           145.2
         SEQ#14 4 SPD IDLE (NEUT)   1424.1   0.13            50.9
         SEQ#14 4 SPD IDLE (DRIV)   1588.8   0.08           102.9
         SEQ#14 FED 2 MODE (30)     1372.9   0.11           266.9
         SEQ#14 FED 2 MODE (NEUT)   1338.9   0.14            49.5

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .1%, HC 100 PPM,
                   PROPANE GAIN 160 RPM.

         SEQ#15 FEDERAL TEST PROC.   1.84    39.8   932.0    2.15              8.9
         SEQ#15 50 MPH CRUISE        0.0     0.07           357.9
         SEQ#15 HIGHWAY FUEL ECON.   0.42     9.1   644.9    2.18             13.4
         SEQ#15 4 SPD IDLE (NEUT)    9.5     0.10            90.0
         SEQ#15 4 SPD IDLE (2500)    0.0     0.08           142.6
         SEQ#15 4 SPD IDLE (NEUT)    8.9     0.09            88.8
         SEQ#15 4 SPD IDLE (DRIV)   92.6     0.06           202.2
         SEQ#15 FED 2 MODE (30)     15.1     0.12           379.1
         SEQ#15 FED 2 MODE (NEUT)   28.6     0.08            81.1

         NO FOLLOW UP LANE TEST DONE

         COMMENT : MAJOR TUNE-UP.  REPLACED PCV VALVE AND FILTER,
                   AIR FILTER, SPARK PLUGS, FRESH AND WARM AIR DUCT,
                   ENGINE OIL AND FILTER, VACUUM ADVANCE UNIT.
                   CORRECTED CHOKE HEAT WIRE, HEAT CONTROL VALVE,
                   TRANSMISSION LINKAGE DELAY VALVE, SET TO SPEC.

         SEQ#16 FEDERAL TEST PROC.   2.25    16.6   819.3    3.81             10.4
         SEQ#16 50 MPH CRUISE       24.3     0.13           633.9
         SEQ#16 HIGHWAY FUEL ECON.   1.14     6.1   506.1    4.32             17.1
         SEQ#16 4 SPD IDLE (NEUT)   64.8     0.09            70.9
         SEQ#16 4 SPD IDLE (2500)   10.5     0.16           195.7
         SEQ#16 4 SPD IDLE (NEUT)   59.9     0.08            70.0
         SEQ#16 4 SPD IDLE (DRIV)   70.1     0.06           200.4
         SEQ#16 FED 2 MODE (30)     27.3     0.07           380.1
         SEQ#16 FED 2 MODE (NEUT)   75.7     0.09            73.6

         FOLLOW UP LANE TEST:
         CAT: P     FUEL: P
         HC:   84  CO:  0.08   GAIN: 150


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE					FUEL ECON
					HC	CO	CO_2	NO_{xc}	CH_4	MPG
5493	75	FORD	460	460(1CMT)						

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 31 CO: 1.45 GAIN: 4

TEST	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#11 FEDERAL TEST PROC.	1.98	68.4	912.2	1.92		8.7
SEQ#11 50 MPH CRUISE	4.6	0.20		301.3		
SEQ#11 HIGHWAY FUEL ECON.	0.20	7.8	683.5	2.72		12.7
SEQ#11 4 SPD IDLE (NEUT)	53.3	2.01		69.3		
SEQ#11 4 SPD IDLE (2500)	0.3	0.06		140.6		
SEQ#11 4 SPD IDLE (NEUT)	72.4	4.29		56.8		
SEQ#11 4 SPD IDLE (DRIV)	146.0	4.88		78.0		
SEQ#11 FED 2 MODE (30)	41.4	1.22		236.6		
SEQ#11 FED 2 MODE (NEUT)	196.0	10.49		36.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 55 RPM.
USED UNIVERSAL PROPANE METHOD.

TEST	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#12 FEDERAL TEST PROC.	2.32	65.0	925.3	1.77		8.6
SEQ#12 50 MPH CRUISE	3.0	0.15		288.1		
SEQ#12 HIGHWAY FUEL ECON.	0.41	8.5	659.8	2.21		13.2
SEQ#12 4 SPD IDLE (NEUT)	35.5	0.78		50.5		
SEQ#12 4 SPD IDLE (2500)	0.0	0.06		128.5		
SEQ#12 4 SPD IDLE (NEUT)	163.0	7.49		42.6		
SEQ#12 4 SPD IDLE (DRIV)	99.9	0.94		93.4		
SEQ#12 FED 2 MODE (30)	14.4	0.29		316.4		
SEQ#12 FED 2 MODE (NEUT)	46.4	0.12		59.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

TEST	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.96	63.6	947.2	2.05		8.4
SEQ#15 50 MPH CRUISE	4.3	0.16		379.1		
SEQ#15 HIGHWAY FUEL ECON.	0.31	10.2	706.1	2.87		12.3
SEQ#15 4 SPD IDLE (NEUT)	738.5	9.72		25.9		
SEQ#15 4 SPD IDLE (2500)	33.2	0.08		150.6		
SEQ#15 4 SPD IDLE (NEUT)	35.2	0.33		55.5		
SEQ#15 4 SPD IDLE (DRIV)	65.5	0.29		94.2		
SEQ#15 FED 2 MODE (30)	8.5	0.09		175.7		
SEQ#15 FED 2 MODE (NEUT)	25.6	0.13		69.5		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 28 CO: 0.70 GAIN: 0

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                   EMISSION RESULTS                  FUEL
VEH.                                      --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY       HC     CO      CO2     NOxc    CH4         MPG
----   -- ---- ---  ----------------    -----  -----   ------   -----   ----        ----
5493   75 FORD 460  460(1CMT)     (CON'T)

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                    AND FILTER, AIR FILTER, OIL AND OIL FILTER,
                    ADJUSTED IDLE SPEED AND MIXTURE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.   1.87    13.0    923.5    2.51                  9.3
          SEQ#16 50 MPH CRUISE         7.9    0.09           741.5
          SEQ#16 HIGHWAY FUEL ECON.   0.52     3.6    649.3    2.75                 13.5
          SEQ#16 4 SPD IDLE (NEUT)   727.1    0.13             47.0
          SEQ#16 4 SPD IDLE (2500)    37.8    0.06            114.9
          SEQ#16 4 SPD IDLE (NEUT)   535.0    0.08             49.1
          SEQ#16 4 SPD IDLE (DRIV)   134.1    0.08             91.6
          SEQ#16 FED 2 MODE (30)      21.7    0.07            102.9
          SEQ#16 FED 2 MODE (NEUT)   519.4    0.11             45.2

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  785   CO:  0.08    GAIN: 140

5495   75 BUIC 350  40J23-A

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC: 1066   CO:  2.39    GAIN:   0

          SEQ#11 FEDERAL TEST PROC.  12.60    33.9    721.2    2.21                 10.9
          SEQ#11 50 MPH CRUISE       109.8    0.01           625.8
          SEQ#11 HIGHWAY FUEL ECON.   1.22     1.9    481.8    3.36                 18.2
          SEQ#11 4 SPD IDLE (NEUT)   887.7    0.39             37.8
          SEQ#11 4 SPD IDLE (2500)   127.1    0.00            165.7
          SEQ#11 4 SPD IDLE (NEUT)   887.7    0.59             41.5
          SEQ#11 4 SPD IDLE (DRIV)   890.0    0.62             48.2
          SEQ#11 FED 2 MODE (30)     117.1    0.01            287.1
          SEQ#11 FED 2 MODE (NEUT)   836.6    0.26             41.8

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 600 RPMS, IDLE NEUTRAL 730
                    RPMS, PROPANE GAIN 50 RPMS.  EFE LINE
                    DISCONNECTED AND EGR VALVE HAS A LEAK RESULTING
                    IN ROUGH IDLE.

          SEQ#12 FEDERAL TEST PROC.   8.59    27.3    700.9    2.09                 11.5
          SEQ#12 50 MPH CRUISE        83.3    0.01           733.9
          SEQ#12 HIGHWAY FUEL ECON.   1.07     1.1    483.6    3.37                 18.2
          SEQ#12 4 SPD IDLE (NEUT)   650.8    0.13             33.9
          SEQ#12 4 SPD IDLE (2500)   116.8    0.01            165.2
          SEQ#12 4 SPD IDLE (NEUT)   621.2    0.22             38.8
          SEQ#12 4 SPD IDLE (DRIV)   582.8    0.15             51.7
          SEQ#12 FED 2 MODE (30)      96.6    0.00            308.3
          SEQ#12 FED 2 MODE (NEUT)   238.8    0.02             30.2

          NO FOLLOW UP LANE TEST DONE


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                       EMISSION RESULTS                     FUEL
VEH.                                         ---------- GRAMS / MILE -----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY           HC       CO       CO2      NOxc     CH4       MPG
----   -- ---- ---  ----------------        -----    -----    ------    -----    ---       ---
5495   75 BUIC 350  40J23-A     (CON'T)

                COMMENT : IDLE SPEED 600 DRIVE, IDLE CO .15%, HC 250 PPM.

                SEQ#15 FEDERAL TEST PROC.     6.75     22.6     697.1     2.23               11.8
                SEQ#15 50 MPH CRUISE         64.8      0.01             462.0
                SEQ#15 HIGHWAY FUEL ECON.     1.09      1.4     418.1     2.91               20.9
                SEQ#15 4 SPD IDLE (NEUT)     19.7      0.00              22.4
                SEQ#15 4 SPD IDLE (2500)     65.2      0.00             106.7
                SEQ#15 4 SPD IDLE (NEUT)     16.1      0.00              24.5
                SEQ#15 4 SPD IDLE (DRIV)     19.7      0.00              48.0
                SEQ#15 FED 2 MODE (30)       73.1      0.00             167.0
                SEQ#15 FED 2 MODE (NEUT)     35.2      0.00              23.7

                NO FOLLOW UP LANE TEST DONE

                COMMENT : MAJOR TUNE-UP, REPLACED AIR, FUEL, OIL AND
                          CRANKCASE BREATHER FILTERS, SPARK PLUGS, PCV
                          VALVE AND ENGINE OIL.  REPLACED FAILED COMPONENTS,
                           CARBURETOR AND VACUUM BREAKS.

                SEQ#16 FEDERAL TEST PROC.     1.77      9.8     672.1     1.71               12.8
                SEQ#16 50 MPH CRUISE          4.9      0.00             380.1
                SEQ#16 HIGHWAY FUEL ECON.     0.11      0.7     424.1     2.61               20.9
                SEQ#16 4 SPD IDLE (NEUT)     23.6      0.01              28.6
                SEQ#16 4 SPD IDLE (2500)      3.0      0.00             112.6
                SEQ#16 4 SPD IDLE (NEUT)     45.4      0.00              32.0
                SEQ#16 4 SPD IDLE (DRIV)     30.2      0.00              48.4
                SEQ#16 FED 2 MODE (30)       23.6      0.01             205.2
                SEQ#16 FED 2 MODE (NEUT)    103.5      0.00              29.6

                FOLLOW UP LANE TEST:
                CAT: P    FUEL: P
                HC:   68  CO:  0.03   GAIN:  70

5496   75 BUIC 350  40J43

                PRELIMINARY LANE TEST:
                CAT: P    FUEL: P
                HC:  587  CO:  7.75   GAIN:   0

                SEQ#11 FEDERAL TEST PROC.     4.16     64.2     774.9     2.15               10.0
                SEQ#11 50 MPH CRUISE         13.8      0.10             240.6
                SEQ#11 HIGHWAY FUEL ECON.     0.57     10.6     624.5     2.76               13.8
                SEQ#11 4 SPD IDLE (NEUT)    283.6      3.41              21.5
                SEQ#11 4 SPD IDLE (2500)     23.6      0.18              83.3
                SEQ#11 4 SPD IDLE (NEUT)    264.4      3.91              24.3
                SEQ#11 4 SPD IDLE (DRIV)    220.1      3.12              28.8
                SEQ#11 FED 2 MODE (30)       24.3      0.10             132.6
                SEQ#11 FED 2 MODE (NEUT)    261.4      3.65              25.0

                NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5496	75	BUIC	350	40J43 (CON'T)						

COMMENT : CORRECTED VACUUM LINE DURING PRE-ADJUSTMENT. IDLE NEUTRAL WITHOUT PROPANE 730 RPM, WITH PROPANE 780 RPM, 50 RPM GAIN AT STEP 8C. VACUUM ADVANCE DIAPHRAGM WAS NOT REPLACED BECAUSE IT WOULD HAVE NO EFFECT ON IDLE MIXTURE OR SEC VAV BREAK.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	3.28	41.5	812.6	2.30		10.0
SEQ#12 50 MPH CRUISE	12.8	0.31		393.3		
SEQ#12 HIGHWAY FUEL ECON.	0.50	13.5	636.3	2.77		13.5
SEQ#12 4 SPD IDLE (NEUT)	495.1	1.70		30.9		
SEQ#12 4 SPD IDLE (2500)	35.2	0.24		116.7		
SEQ#12 4 SPD IDLE (NEUT)	444.4	1.21		32.9		
SEQ#12 4 SPD IDLE (DRIV)	523.9	0.41		37.2		
SEQ#12 FED 2 MODE (30)	42.7	0.19		189.3		
SEQ#12 FED 2 MODE (NEUT)	595.4	1.26		30.8		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .6%, HC 1200 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#13 FEDERAL TEST PROC.	3.23	34.0	846.6	2.16		9.8
SEQ#13 50 MPH CRUISE	9.2	0.47		352.8		
SEQ#13 HIGHWAY FUEL ECON.	0.36	17.8	603.1	2.14		14.0
SEQ#13 4 SPD IDLE (NEUT)	274.5	0.62		35.8		
SEQ#13 4 SPD IDLE (2500)	18.4	0.47		111.3		
SEQ#13 4 SPD IDLE (NEUT)	325.1	0.30		31.3		
SEQ#13 4 SPD IDLE (DRIV)	376.9	0.13		35.1		
SEQ#13 FED 2 MODE (30)	35.8	0.20		197.0		
SEQ#13 FED 2 MODE (NEUT)	481.8	0.29		28.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .3%, HC 700 PPM.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	3.36	51.3	808.5	1.97		9.9
SEQ#15 50 MPH CRUISE	11.5	0.50		489.3		
SEQ#15 HIGHWAY FUEL ECON.	0.68	30.5	574.2	2.86		14.2
SEQ#15 4 SPD IDLE (NEUT)	169.3	3.00		43.9		
SEQ#15 4 SPD IDLE (2500)	17.4	1.02		103.4		
SEQ#15 4 SPD IDLE (NEUT)	510.6	0.97		45.2		
SEQ#15 4 SPD IDLE (DRIV)	242.0	2.09		60.1		
SEQ#15 FED 2 MODE (30)	43.4	1.30		148.0		
SEQ#15 FED 2 MODE (NEUT)	654.1	0.47		39.9		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5496	75	BUIC	350	40J43 (CON'T)						

COMMENT : MAJOR TUNE-UP. REPLACED VACUUM DIAPHRAGM, VACUUM ADVANE UNIT, SPARK PLUGS, FUEL, PCV, CANISTER, AIR FILTERS, OIL & OIL FILTER, PCV VALVE. ADJUSTED SEC VAC BREAK, IDLE SPEED & MIXUTE TO SPEC.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	3.41	27.9	783.8	2.46		10.6
SEQ#16 50 MPH CRUISE	46.0	0.69		601.5		
SEQ#16 HIGHWAY FUEL ECON.	0.79	22.8	533.8	3.31		15.5
SEQ#16 4 SPD IDLE (NEUT)	272.9	0.22		36.0		
SEQ#16 4 SPD IDLE (2500)	39.4	0.29		154.4		
SEQ#16 4 SPD IDLE (NEUT)	331.6	0.18		33.1		
SEQ#16 4 SPD IDLE (DRIV)	227.8	0.12		39.3		
SEQ#16 FED 2 MODE (30)	73.1	0.17		283.1		
SEQ#16 FED 2 MODE (NEUT)	392.1	0.18		29.6		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 291 CO: 1.27 GAIN: 179

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
5497	75	BUIC	455	40S43

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 203 CO: 3.48 GAIN: 0

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	2.94	33.6	858.6	1.72		9.6
SEQ#11 50 MPH CRUISE	15.8	0.01		350.8		
SEQ#11 HIGHWAY FUEL ECON.	0.38	3.5	579.3	2.28		15.1
SEQ#11 4 SPD IDLE (NEUT)	90.0	1.34		46.4		
SEQ#11 4 SPD IDLE (2500)	105.8	0.01		118.5		
SEQ#11 4 SPD IDLE (NEUT)	93.9	1.46		44.4		
SEQ#11 4 SPD IDLE (DRIV)	83.3	1.00		83.8		
SEQ#11 FED 2 MODE (30)	35.8	0.02		135.2		
SEQ#11 FED 2 MODE (NEUT)	97.6	0.86		42.4		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE MIXTURE AND SPEED ADJUSTED TO SPEC. IDLE DRIVE 600 RPM, CO .05%.

	HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#15 FEDERAL TEST PROC.	2.31	17.9	886.0	1.81		9.6
SEQ#15 50 MPH CRUISE	4.9	0.01		370.0		
SEQ#15 HIGHWAY FUEL ECON.	0.22	1.3	591.3	2.51		14.9
SEQ#15 4 SPD IDLE (NEUT)	49.7	0.21		46.0		
SEQ#15 4 SPD IDLE (2500)	50.6	0.01		118.3		
SEQ#15 4 SPD IDLE (NEUT)	33.2	0.18		38.0		
SEQ#15 4 SPD IDLE (DRIV)	37.5	0.18		84.9		
SEQ#15 FED 2 MODE (30)	35.2	0.02		118.5		
SEQ#15 FED 2 MODE (NEUT)	12.5	0.01		42.7		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                               EMISSION RESULTS                    FUEL
VEH.                                   --------- GRAMS / MILE ---------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC      CO      CO2    NOxc    CH4       MPG
----  -- ---- --- -----------------    -----   -----   ------   -----   ----      ----
5497  75 BUIC 455 40S43      (CON'T)

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                    FILTER, PCV VALVE AND FILTER, FUEL AND PURGE
                    CANISTER FILTERS.  REPLACED FRESH AIR TUBE.

          SEQ#16 FEDERAL TEST PROC.     2.13    15.7    908.3    1.76               9.4
          SEQ#16 50 MPH CRUISE          1.6     0.01           343.7
          SEQ#16 HIGHWAY FUEL ECON.     0.18    0.9     598.1    2.57              14.8
          SEQ#16 4 SPD IDLE (NEUT)    122.4     0.24            39.1
          SEQ#16 4 SPD IDLE (2500)    114.5     0.01           119.0
          SEQ#16 4 SPD IDLE (NEUT)     17.7     0.02            33.5
          SEQ#16 4 SPD IDLE (DRIV)     26.9     0.18            62.4
          SEQ#16 FED 2 MODE (30)       55.9     0.01           123.9
          SEQ#16 FED 2 MODE (NEUT)      8.2     0.01            46.4

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  156   CO:  1.37   GAIN:  90

5499  75 CADI 500 60V43

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  471   CO:  0.18   GAIN: 100

          SEQ#11 FEDERAL TEST PROC.     5.11  171.9     655.6    1.96               9.4
          SEQ#11 50 MPH CRUISE        157.7     7.29           250.7
          SEQ#11 HIGHWAY FUEL ECON.     4.07  215.5     399.2    0.83              11.8
          SEQ#11 4 SPD IDLE (NEUT)    418.2     0.09            98.3
          SEQ#11 4 SPD IDLE (2500)    245.6     9.06            70.7
          SEQ#11 4 SPD IDLE (NEUT)    383.4     0.15           107.2
          SEQ#11 4 SPD IDLE (DRIV)     79.4     0.09           426.6
          SEQ#11 FED 2 MODE (30)      184.7     5.16           354.8
          SEQ#11 FED 2 MODE (NEUT)    433.5     0.13           111.6

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .09%, HC 250 PPM.

          SEQ#15 FEDERAL TEST PROC.     4.62  168.0     618.8    1.75               9.9
          SEQ#15 50 MPH CRUISE        168.7     7.35           202.2
          SEQ#15 HIGHWAY FUEL ECON.     3.78  201.3     394.7    0.80              12.3
          SEQ#15 4 SPD IDLE (NEUT)    448.8     0.03           106.5
          SEQ#15 4 SPD IDLE (2500)    194.0     7.77            78.2
          SEQ#15 4 SPD IDLE (NEUT)    517.2     0.05           141.9
          SEQ#15 4 SPD IDLE (DRIV)    166.0     0.02           340.7
          SEQ#15 FED 2 MODE (30)      175.3     4.43           430.7
          SEQ#15 FED 2 MODE (NEUT)    667.7     0.05           115.2

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                                LISTING OF TEST RESULTS
                                      HOUSTON #2
                                                     EMISSION RESULTS                 FUEL
VEH.                                       --------- GRAMS / MILE ----------          ECON
NO.   YR MAKE CID     ENGINE FAMILY         HC     CO      CO2     NOxc    CH4        MPG
----  -- ---- ---  ----------------       -----  -----   ------   -----   -----      ----
5499  75 CADI 500 60V43     (CON'T)

            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR FILTER,
                      FUEL FILTER, PCV VALVE, CRANKCASE BREATHER FILTER
                      AND ATTACHING RUBBER GROMMETS, ENGINE OIL AND
                      FILTER, CARBON CANISTER FILTER, PCV LINE.
                      ADJUSTED HOUSING.

            SEQ#16 FEDERAL TEST PROC.    4.17   136.9    670.6    2.37                9.9
            SEQ#16 50 MPH CRUISE       142.0     5.81           304.3
            SEQ#16 HIGHWAY FUEL ECON.    3.45   178.2    439.7    1.22               12.1
            SEQ#16 4 SPD IDLE (NEUT)   335.9     0.02           129.8
            SEQ#16 4 SPD IDLE (2500)   158.7     6.59            89.8
            SEQ#16 4 SPD IDLE (NEUT)   497.3     0.02           138.3
            SEQ#16 4 SPD IDLE (DRIV)   121.1     0.00           388.2
            SEQ#16 FED 2 MODE (30)     146.0     2.69           681.4
            SEQ#16 FED 2 MODE (NEUT)   717.9     0.04           126.5

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  594  CO:  0.11   GAIN: 150

5826  75 CHEV 140 10C21

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:  226  CO:  5.61   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.    4.03    50.5    335.2    3.46               20.8
            SEQ#11 50 MPH CRUISE        71.1     0.39          2347.1
            SEQ#11 HIGHWAY FUEL ECON.    1.24    14.4    269.6    4.99               30.0
            SEQ#11 4 SPD IDLE (NEUT)   249.0     5.95            56.6
            SEQ#11 4 SPD IDLE (2500)   115.5     2.51           204.0
            SEQ#11 4 SPD IDLE (NEUT)   233.9     5.78            57.2
            SEQ#11 FED 2 MODE (30)     156.3     0.68          1948.8
            SEQ#11 FED 2 MODE (NEUT)   245.6     6.04            66.7

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  236  CO:  5.84   GAIN:   0

            COMMENT : CONNECTED EGR LINE DURING PRE-ADJUSTMENT. 50 RPM
                      PROPANE GAIN ACHEIVED AT STEP 7 OF PROPANE
                      CARBURETOR ADJUSTMENT M-1.

            SEQ#12 FEDERAL TEST PROC.    2.75    24.9    357.8    1.66               21.9
            SEQ#12 50 MPH CRUISE        51.6     0.10           852.2
            SEQ#12 HIGHWAY FUEL ECON.    0.71     7.6    267.5    2.21               31.5
            SEQ#12 4 SPD IDLE (NEUT)   137.4     0.57            51.7
            SEQ#12 4 SPD IDLE (2500)    79.4     1.52           222.7
            SEQ#12 4 SPD IDLE (NEUT)    70.8     0.07            49.7
            SEQ#12 FED 2 MODE (30)      90.0     0.18          1708.4
            SEQ#12 FED 2 MODE (NEUT)    91.6     0.02            74.8

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:   72  CO:  0.07   GAIN:  50

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                            TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2

                                                        EMISSION RESULTS                FUEL
VEH.                                           ---------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY              HC      CO      CO2     NOxc    CH4     MPG
----   -- ---- --- -----------------           -----   -----   ------   -----   ----    ----
5826   75 CHEV 140 10C21     (CON'T)

           COMMENT : ADJUSTED IDLE SPEED & MIXTURE.

           SEQ#13 FEDERAL TEST PROC.            2.87    29.5    368.3    2.11            20.9
           SEQ#13 50 MPH CRUISE                41.1     0.08           901.7
           SEQ#13 HIGHWAY FUEL ECON.            0.63     5.6    272.6    2.36            31.3
           SEQ#13 4 SPD IDLE (NEUT)           131.7     0.37            51.0
           SEQ#13 4 SPD IDLE (2500)            69.5     1.42           242.4
           SEQ#13 4 SPD IDLE (NEUT)           112.8     0.33            53.4
           SEQ#13 FED 2 MODE (30)             105.8     0.26          1821.1
           SEQ#13 FED 2 MODE (NEUT)           117.8     0.22            58.6

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:   112  CO:   0.35   GAIN: 200

           COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

           SEQ#15 FEDERAL TEST PROC.            2.53    24.9    370.6    1.78            21.2
           SEQ#15 50 MPH CRUISE                46.7     0.06           836.6
           SEQ#15 HIGHWAY FUEL ECON.            0.54     4.8    271.3    2.44            31.6
           SEQ#15 4 SPD IDLE (NEUT)            40.8     0.00            63.2
           SEQ#15 4 SPD IDLE (2500)            42.4     0.83           192.9
           SEQ#15 4 SPD IDLE (NEUT)            53.6     0.00            61.6
           SEQ#15 FED 2 MODE (30)              81.7     0.11          1848.6
           SEQ#15 FED 2 MODE (NEUT)            88.0     0.01            88.3

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    16  CO:   0.00   GAIN: 170

           COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR,FUEL,
                     CARBON CANISTER,& OIL FILTERS,ENGINE OIL,PCV
                     VALVE.ADJUSTED FAST IDLE,IDLE RPM,AND MIXTURE TO
                     SPEC.

           SEQ#16 FEDERAL TEST PROC.            2.19    23.2    374.1    1.75            21.3
           SEQ#16 50 MPH CRUISE                38.1     0.04           834.1
           SEQ#16 HIGHWAY FUEL ECON.            0.45     4.0    272.9    2.30            31.6
           SEQ#16 4 SPD IDLE (NEUT)            85.7     0.00            64.4
           SEQ#16 4 SPD IDLE (2500)            32.9     0.66           179.6
           SEQ#16 4 SPD IDLE (NEUT)            65.5     0.01            61.8
           SEQ#16 FED 2 MODE (30)              84.7     0.11          1961.4
           SEQ#16 FED 2 MODE (NEUT)           163.7     0.01            66.4

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:    66  CO:   0.01   GAIN: 120


[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                        EMISSION RESULTS            FUEL
VEH.                                          ---------- GRAMS / MILE ----------   ECON
 NO.  YR MAKE CID    ENGINE FAMILY      HC     CO     CO2    NOxc   CH4    MPG
----  -- ---- --- ----------------   -----  -----  ------  -----  ----   ---
5828  75 CHEV 250 10F13

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  332  CO:  7.03   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.   2.39   56.1   471.7   3.03        15.6
           SEQ#11 50 MPH CRUISE        13.8   0.01         1014.5
           SEQ#11 HIGHWAY FUEL ECON.   0.26    3.0   381.5   3.82        22.9
           SEQ#11 4 SPD IDLE (NEUT)   392.6   7.45           24.8
           SEQ#11 4 SPD IDLE (2500)    13.5   0.02          295.2
           SEQ#11 4 SPD IDLE (NEUT)   374.9   7.56           33.8
           SEQ#11 4 SPD IDLE (DRIV)   414.8   8.66           34.3
           SEQ#11 FED 2 MODE (30)      30.9   0.01         1057.1
           SEQ#11 FED 2 MODE (NEUT)   381.6   7.11           50.3

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE NEUTRAL 800 RPM, PROPANE GAIN 50 RPM.

           SEQ#12 FEDERAL TEST PROC.   0.72    9.0   539.2   1.61        16.0
           SEQ#12 50 MPH CRUISE         0.7   0.01          343.7
           SEQ#12 HIGHWAY FUEL ECON.   0.09    0.5   408.6   1.62        21.7
           SEQ#12 4 SPD IDLE (NEUT)     7.5   0.01           65.2
           SEQ#12 4 SPD IDLE (2500)     2.3   0.01          124.7
           SEQ#12 4 SPD IDLE (NEUT)     7.9   0.01           72.1
           SEQ#12 4 SPD IDLE (DRIV)     6.2   0.01          171.6
           SEQ#12 FED 2 MODE (30)      18.4   0.01          765.3
           SEQ#12 FED 2 MODE (NEUT)    21.7   0.01           85.4

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE DRIVE 550 RPM, MIXTURE SETTING: LEAN DROP
                     FROM 650 TO 600 RPM IN DRIVE, RESET SPEED TO 550
                     RPM.  TIMING WAS NOT ADJUSTED.

           SEQ#15 FEDERAL TEST PROC.   0.62    9.0   541.4   1.61        15.9
           SEQ#15 50 MPH CRUISE         7.2   0.01          256.8
           SEQ#15 HIGHWAY FUEL ECON.   0.07    0.2   409.8   1.48        21.6
           SEQ#15 4 SPD IDLE (NEUT)    19.7   0.01           58.7
           SEQ#15 4 SPD IDLE (2500)     9.8   0.01          116.2
           SEQ#15 4 SPD IDLE (NEUT)    22.7   0.01           60.0
           SEQ#15 4 SPD IDLE (DRIV)    13.5   0.01          148.8
           SEQ#15 FED 2 MODE (30)      20.0   0.01          646.0
           SEQ#15 FED 2 MODE (NEUT)    46.7   0.01           69.3

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                     EMISSION RESULTS              FUEL
VEH.                                         ---------- GRAMS / MILE ----------    ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC     CO     CO2    NOxc   CH4     MPG
----   -- ---- --- -----------------       -----  -----  ------  -----  ----    ----
5828   75 CHEV 250 10F13    (CON'T)

              COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                        OIL, CRANKCASE BREATHER FILTERS, CHARCOAL
                        CANISTER FILTER, PCV VALVE AND ENGINE OIL.
                        ADJUSTED TIMING, IDLE SPEED AND MIXTURE.

              SEQ#16 FEDERAL TEST PROC.    0.76   11.5   523.1   1.70           16.3
              SEQ#16 50 MPH CRUISE          9.5   0.01         329.6
              SEQ#16 HIGHWAY FUEL ECON.    0.10    0.5   396.9   1.95           22.3
              SEQ#16 4 SPD IDLE (NEUT)     36.8   0.00          53.7
              SEQ#16 4 SPD IDLE (2500)      9.5   0.00         124.2
              SEQ#16 4 SPD IDLE (NEUT)     31.2   0.00          59.9
              SEQ#16 4 SPD IDLE (DRIV)     15.4   0.00         161.4
              SEQ#16 FED 2 MODE (30)       21.7   0.01         621.7
              SEQ#16 FED 2 MODE (NEUT)     67.5   0.00          65.7

              FOLLOW UP LANE TEST:
              CAT: P     FUEL: P
              HC:    34  CO:   0.02    GAIN: 190

5829   75 CHEV 350 10J23

              PRELIMINARY LANE TEST:
              CAT: P     FUEL: P
              HC:   321  CO:   6.24    GAIN:    0

              SEQ#11 FEDERAL TEST PROC.    3.92   73.1   536.4   3.80           13.4
              SEQ#11 50 MPH CRUISE         21.3   0.02         946.9
              SEQ#11 HIGHWAY FUEL ECON.    0.74    8.7   420.6   4.95           20.3
              SEQ#11 4 SPD IDLE (NEUT)    802.0   5.81          25.3
              SEQ#11 4 SPD IDLE (2500)    100.9   0.57         207.5
              SEQ#11 4 SPD IDLE (NEUT)    589.6   5.57          36.7
              SEQ#11 4 SPD IDLE (DRIV)    372.7   6.23          54.4
              SEQ#11 FED 2 MODE (30)      146.0   2.23         213.4
              SEQ#11 FED 2 MODE (NEUT)    639.4   5.28          30.7

              NO FOLLOW UP LANE TEST DONE

              COMMENT : IDLE SPEED 770 RPM IN NEUTRAL.  PROPANE GAIN 50
                        RPM.  ACHEIVED AT STEP 6 OF PROPANE CARB
                        ADJUSTMENT PROCEDURE A-2.

              SEQ#12 FEDERAL TEST PROC.    2.93   24.0   574.3   4.26           14.3
              SEQ#12 50 MPH CRUISE         12.8   0.01         649.0
              SEQ#12 HIGHWAY FUEL ECON.    0.47    2.8   460.6   5.61           19.0
              SEQ#12 4 SPD IDLE (NEUT)    359.5   0.08          30.5
              SEQ#12 4 SPD IDLE (2500)     32.2   0.05         137.0
              SEQ#12 4 SPD IDLE (NEUT)    304.4   0.12          33.0
              SEQ#12 4 SPD IDLE (DRIV)    147.7   0.39          77.3
              SEQ#12 FED 2 MODE (30)       64.2   0.27         240.6
              SEQ#12 FED 2 MODE (NEUT)    222.1   0.02          21.7

              NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                  FUEL
VEH.                                       --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO      CO2     NOxc    CH4   MPG
----   -- ---- ---  ----------------       -----   -----   ------   -----   ----   ----
5829   75 CHEV 350  10J23    (CON'T)

           COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .4%, HC 860 PPM.
                     USED UNIVERSAL CO METHOD.

           SEQ#13 FEDERAL TEST PROC.    1.57     8.0    579.5    4.34            14.9
           SEQ#13 50 MPH CRUISE        15.4     0.01            653.1
           SEQ#13 HIGHWAY FUEL ECON.    0.33     1.4    460.9    5.65            19.1
           SEQ#13 4 SPD IDLE (NEUT)   142.7     0.01             45.7
           SEQ#13 4 SPD IDLE (2500)    36.2     0.01            161.6
           SEQ#13 4 SPD IDLE (NEUT)   207.1     0.01             47.3
           SEQ#13 4 SPD IDLE (DRIV)    41.4     0.00            107.5
           SEQ#13 FED 2 MODE (30)      28.9     0.02            265.9
           SEQ#13 FED 2 MODE (NEUT)   285.7     0.01             42.5

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED TIMING TO MANUFACTURER SPEC.  IDLE RPM
                     DRIVE 600.  CO .1%, HC 130 PPM.  PROPANE GAIN 100
                     RPM.

           SEQ#15 FEDERAL TEST PROC.    0.71     3.1    656.3    2.42            13.4
           SEQ#15 50 MPH CRUISE         7.2     0.01            349.8
           SEQ#15 HIGHWAY FUEL ECON.    0.18     0.7    478.3    3.10            18.5
           SEQ#15 4 SPD IDLE (NEUT)    89.0     0.00             42.8
           SEQ#15 4 SPD IDLE (2500)     4.9     0.01            118.0
           SEQ#15 4 SPD IDLE (NEUT)    48.0     0.00             47.2
           SEQ#15 4 SPD IDLE (DRIV)    16.7     0.00            113.1
           SEQ#15 FED 2 MODE (30)      13.5     0.01            154.4
           SEQ#15 FED 2 MODE (NEUT)    72.1     0.00             37.2

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   56  CO:  0.02   GAIN: 240

           COMMENT : MAJOR TUNE-UP.  PARTS INCLUDED AIR, FUEL, OIL,
                     CRANKCASE BREATHER, CHARCOAL CANISTER FILTERS,
                     SPARK PLUGS, PCV VALVE, ENGINE OIL.  ADJUSTED
                     IDLE SPEED.

           SEQ#16 FEDERAL TEST PROC.    0.91     4.5    632.6    2.41            13.8
           SEQ#16 50 MPH CRUISE         3.3     0.00            259.8
           SEQ#16 HIGHWAY FUEL ECON.    0.17     0.5    470.9    2.84            18.8
           SEQ#16 4 SPD IDLE (NEUT)   177.0     0.00             23.2
           SEQ#16 4 SPD IDLE (2500)     7.5     0.01             98.0
           SEQ#16 4 SPD IDLE (NEUT)   103.5     0.00             25.1
           SEQ#16 4 SPD IDLE (DRIV)    25.0     0.00             52.2
           SEQ#16 FED 2 MODE (30)       9.2     0.00            117.5
           SEQ#16 FED 2 MODE (NEUT)   244.6     0.00             18.4

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:  149  CO:  0.02   GAIN: 200
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                  AUTOMOTIVE TESTING LABORATORIES,INC.

                         TEXAS PILOT I/M STUDY


                        LISTING OF TEST RESULTS
                              HOUSTON #2

                                               EMISSION RESULTS                      FUEL
VEH.                                   ---------- GRAMS / MILE -----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2      NOxc    CH4      MPG
----   -- ---- --- -----------------   ----    -----   ------    -----   ----     ----
5831   75 CHEV 350 10J23

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:  500  CO:  9.08   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.   6.37   164.6   516.5    1.35              11.2
            SEQ#11 50 MPH CRUISE      125.4     2.12           460.0
            SEQ#11 HIGHWAY FUEL ECON.   2.71    69.4   411.9    1.55              16.8
            SEQ#11 4 SPD IDLE (NEUT)  401.5     7.27            28.1
            SEQ#11 4 SPD IDLE (2500)   84.7     2.39           106.5
            SEQ#11 4 SPD IDLE (NEUT)  386.0     7.15            36.4
            SEQ#11 4 SPD IDLE (DRIV)  408.1     8.00            41.8
            SEQ#11 FED 2 MODE (30)    203.4     4.00            98.0
            SEQ#11 FED 2 MODE (NEUT)  352.8     6.69            43.7

            NO FOLLOW UP LANE TEST DONE


            COMMENT : IDLE DRIVE 600 RPM, PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.   3.64    59.9   553.5    1.74              13.5
            SEQ#12 50 MPH CRUISE       94.6     1.21           661.1
            SEQ#12 HIGHWAY FUEL ECON.   2.11    47.3   448.4    2.12              16.8
            SEQ#12 4 SPD IDLE (NEUT)   41.7     0.01            76.6
            SEQ#12 4 SPD IDLE (2500)   43.1     1.12           138.8
            SEQ#12 4 SPD IDLE (NEUT)   49.3     0.02            74.7
            SEQ#12 4 SPD IDLE (DRIV)  176.0     0.20           178.0
            SEQ#12 FED 2 MODE (30)    130.4     1.41           197.0
            SEQ#12 FED 2 MODE (NEUT)   49.0     0.01            92.6

            NO FOLLOW UP LANE TEST DONE


            COMMENT : IDLE RPM 750 NEUTRAL, CO .4%.

            SEQ#13 FEDERAL TEST PROC.   3.26    58.7   591.1    1.84              12.8
            SEQ#13 50 MPH CRUISE       58.2     0.74           373.0
            SEQ#13 HIGHWAY FUEL ECON.   1.77    41.3   426.8    1.89              17.8
            SEQ#13 4 SPD IDLE (NEUT)   17.7     0.01            82.4
            SEQ#13 4 SPD IDLE (2500)   18.4     0.48            91.1
            SEQ#13 4 SPD IDLE (NEUT)   21.7     0.00            78.6
            SEQ#13 4 SPD IDLE (DRIV)   13.8     0.00           128.5
            SEQ#13 FED 2 MODE (30)     72.4     0.79           120.8
            SEQ#13 FED 2 MODE (NEUT)   28.6     0.01            64.3

            NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %: HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS             FUEL
VEH.                                       --------- GRAMS / MILE ----------      ECON
 NO.   YR MAKE CID     ENGINE FAMILY        HC       CO       CO2     NOxc   CH4   MPG
----   -- ---- --- -----------------      -----    -----    ------   -----  ----  ----
5831   75 CHEV 350 10J23     (CON'T)

          COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO SPEC.

          SEQ#15 FEDERAL TEST PROC.        2.52     52.0     611.7    1.87         12.7
          SEQ#15 50 MPH CRUISE            65.5      1.25             331.6
          SEQ#15 HIGHWAY FUEL ECON.        1.81     44.9     448.4    2.11         16.9
          SEQ#15 4 SPD IDLE (NEUT)        29.6      0.01             133.1
          SEQ#15 4 SPD IDLE (2500)        20.0      0.39              96.6
          SEQ#15 4 SPD IDLE (NEUT)        24.6      0.01              93.8
          SEQ#15 4 SPD IDLE (DRIV)        15.4      0.01             136.7
          SEQ#15 FED 2 MODE (30)          37.8      0.13              99.8
          SEQ#15 FED 2 MODE (NEUT)        67.5      0.00              85.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL AND OIL
                    FILTER, PCV VALVE AND FILTER, AIR FILTER ELEMENT.

          SEQ#16 FEDERAL TEST PROC.        1.74     28.2     605.3    1.93         13.5
          SEQ#16 50 MPH CRUISE            38.5      0.39             312.4
          SEQ#16 HIGHWAY FUEL ECON.        1.40     33.2     448.3    2.28         17.6
          SEQ#16 4 SPD IDLE (NEUT)        44.7      0.01             100.6
          SEQ#16 4 SPD IDLE (2500)        10.5      0.06              79.0
          SEQ#16 4 SPD IDLE (NEUT)        44.4      0.01              71.8
          SEQ#16 4 SPD IDLE (DRIV)        18.1      0.01             100.6
          SEQ#16 FED 2 MODE (30)          23.6      0.03             163.7
          SEQ#16 FED 2 MODE (NEUT)        99.2      0.01              55.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   76  CO:  0.05   GAIN: 290

5832   75 CHEV 350 10J23

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  156  CO:  4.99   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.        2.74     74.8     682.0    2.99         11.0
          SEQ#11 50 MPH CRUISE             8.9      0.00            1014.5
          SEQ#11 HIGHWAY FUEL ECON.        0.30      8.1     495.8    4.29         17.4
          SEQ#11 4 SPD IDLE (NEUT)       160.0      4.67              41.0
          SEQ#11 4 SPD IDLE (2500)        50.3      1.63             141.6
          SEQ#11 4 SPD IDLE (NEUT)       134.7      4.00              54.2
          SEQ#11 4 SPD IDLE (DRIV)       185.4      4.20              82.9
          SEQ#11 FED 2 MODE (30)          86.6      1.40             310.4
          SEQ#11 FED 2 MODE (NEUT)       109.8      3.09              65.2

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                     AUTOMOTIVE TESTING LABORATORIES,INC.

                          TEXAS PILOT I/M STUDY


                           LISTING OF TEST RESULTS
                                HOUSTON #2

                                                  EMISSION RESULTS              FUEL
VEH.                                 --------- GRAMS / MILE ----------          ECON
NO.   YR MAKE CID   ENGINE FAMILY      HC     CO     CO2    NOxc    CH4         MPG
----  -- ---- --- ----------------- -----  -----  ------  -----   ----         ----
5832  75 CHEV 350 10J23   (CON'T)

         COMMENT : ADJUSTED IDLE DRIVE TO 500 RPM, IDLE NEUTRAL TO
                   755 RPM, PROPANE GAIN 65 RPM.

         SEQ#12 FEDERAL TEST PROC.    1.90   38.2   669.0   2.67                12.1
         SEQ#12 50 MPH CRUISE          9.5   0.00         924.3
         SEQ#12 HIGHWAY FUEL ECON.    0.17    3.1   490.6   4.16                17.9
         SEQ#12 4 SPD IDLE (NEUT)     17.7   0.02           37.7
         SEQ#12 4 SPD IDLE (2500)      2.3   0.01          168.0
         SEQ#12 4 SPD IDLE (NEUT)     16.4   0.16           13.1
         SEQ#12 4 SPD IDLE (DRIV)    100.2   0.56           67.5
         SEQ#12 FED 2 MODE (30)       16.1   0.03          254.8
         SEQ#12 FED 2 MODE (NEUT)     23.6   0.10           34.1

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE TO 590 RPM, IDLE CO .4%,
                   ACHIEVED AT STEP 5B OF CO ADJUSTMENT PROCEDURE A-
                   2.

         SEQ#13 FEDERAL TEST PROC.    1.49   28.0   660.6   2.47                12.5
         SEQ#13 50 MPH CRUISE          4.3   0.00          538.8
         SEQ#13 HIGHWAY FUEL ECON.    0.11    1.8   486.8   3.93                18.1
         SEQ#13 4 SPD IDLE (NEUT)     13.1   0.01           34.7
         SEQ#13 4 SPD IDLE (2500)      3.9   0.01          107.5
         SEQ#13 4 SPD IDLE (NEUT)     12.8   0.01           36.7
         SEQ#13 4 SPD IDLE (DRIV)      5.6   0.01           55.0
         SEQ#13 FED 2 MODE (30)       10.5   0.01          168.3
         SEQ#13 FED 2 MODE (NEUT)     16.1   0.01           34.7

         NO FOLLOW UP LANE TEST DONE

         COMMENT : ADJUSTED IDLE DRIVE TO 600 RPM, CO .04%, HC 90
                   PPM, IDLE NEUTRAL TO 740 RPM, CO .05%, HC 320 PPM,
                   PROPANE GAIN 200 RPM.

         SEQ#15 FEDERAL TEST PROC.    0.92   16.1   693.6   2.82                12.3
         SEQ#15 50 MPH CRUISE          8.5   0.00          471.1
         SEQ#15 HIGHWAY FUEL ECON.    0.06    0.2   485.7   4.15                18.3
         SEQ#15 4 SPD IDLE (NEUT)     25.3   0.00           32.2
         SEQ#15 4 SPD IDLE (2500)      3.6   0.00          102.6
         SEQ#15 4 SPD IDLE (NEUT)     37.8   0.00           31.7
         SEQ#15 4 SPD IDLE (DRIV)      8.2   0.00           62.1
         SEQ#15 FED 2 MODE (30)        9.2   0.00          158.5
         SEQ#15 FED 2 MODE (NEUT)     75.1   0.00           29.6

         NO FOLLOW UP LANE TEST DONE





[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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                                LISTING OF TEST RESULTS
                                       HOUSTON #2

                                                       EMISSION RESULTS              FUEL
VEH.                                         --------- GRAMS / MILE ----------       ECON
 NO.   YR MAKE CID    ENGINE FAMILY           HC      CO      CO2    NOxc    CH4     MPG
----   -- ---- ---  ------------------      -----   -----   ------   -----   ----    ----
5832   75 CHEV 350 10J23     (CON'T)

            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, FUEL,
                      OIL AND CRANKCASE BREATHER FILTER, PCV VALVE AND
                      ENGINE OIL.  ADJUSTED IDLE SPEED, TIMING AND
                      CARBURETOR CHOKE THERMOSTAT COVER.

            SEQ#16 FEDERAL TEST PROC.     0.57     5.4    698.8    2.92            12.5
            SEQ#16 50 MPH CRUISE          7.5     0.00           546.9
            SEQ#16 HIGHWAY FUEL ECON.     0.07     0.4    490.7    4.78            18.1
            SEQ#16 4 SPD IDLE (NEUT)     22.3     0.00            42.6
            SEQ#16 4 SPD IDLE (2500)      1.6     0.00           101.8
            SEQ#16 4 SPD IDLE (NEUT)     12.8     0.00            41.4
            SEQ#16 4 SPD IDLE (DRIV)      3.0     0.00           101.6
            SEQ#16 FED 2 MODE (30)        6.6     0.00           181.9
            SEQ#16 FED 2 MODE (NEUT)     36.8     0.00            34.2

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    25  CO:  0.02   GAIN: 230

5833   75 CHEV 350 10J23

            PRELIMINARY LANE TEST:
            CAT: P     FUEL: P
            HC:  336   CO:  6.30   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.     5.42   112.1    552.4    3.43            11.9
            SEQ#11 50 MPH CRUISE         87.3     1.43          1362.7
            SEQ#11 HIGHWAY FUEL ECON.     2.06    44.2    440.8    4.12            17.2
            SEQ#11 4 SPD IDLE (NEUT)    684.9     6.76            17.1
            SEQ#11 4 SPD IDLE (2500)     95.6     2.20           201.4
            SEQ#11 4 SPD IDLE (NEUT)    383.8     6.74            24.7
            SEQ#11 4 SPD IDLE (DRIV)    412.6     7.49            28.1
            SEQ#11 FED 2 MODE (30)      167.3     2.78           398.3
            SEQ#11 FED 2 MODE (NEUT)    337.4     6.04            34.0

            NO FOLLOW UP LANE TEST DONE

            COMMENT : IDLE SPEED 600 RPM DRIVE, PROPANE GAIN 50 RPM.

            SEQ#12 FEDERAL TEST PROC.     2.97    41.5    606.9    3.18            13.0
            SEQ#12 50 MPH CRUISE         79.4     1.06          1380.2
            SEQ#12 HIGHWAY FUEL ECON.     1.86    35.7    453.2    3.97            17.2
            SEQ#12 4 SPD IDLE (NEUT)    275.2     2.47            22.4
            SEQ#12 4 SPD IDLE (2500)     36.2     0.86           227.0
            SEQ#12 4 SPD IDLE (NEUT)    231.2     4.09            29.4
            SEQ#12 4 SPD IDLE (DRIV)    283.0     4.13            41.5
            SEQ#12 FED 2 MODE (30)       84.7     0.27           678.3
            SEQ#12 FED 2 MODE (NEUT)    231.2     1.87            51.1

            NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

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                                                           EMISSION RESULTS                   FUEL
VEH.                                             ---------- GRAMS / MILE -----------          ECON
 NO.   YR MAKE CID      ENGINE FAMILY           HC      CO      CO2      NOxc     CH4         MPG
----   -- ---- ---  ------------------        -----   -----   ------   -----    -----        ----
5833   75 CHEV 350  10J23      (CON'T)

           COMMENT : IDLE SPEED 600 RPM DRIVE, CO .3%.

           SEQ#13 FEDERAL TEST PROC.       2.12    31.1    627.8     3.35                  13.0
           SEQ#13 50 MPH CRUISE           66.2      0.61           1422.8
           SEQ#13 HIGHWAY FUEL ECON.       1.56    30.5    448.5     4.06                  17.7
           SEQ#13 4 SPD IDLE (NEUT)      144.4      0.37             46.3
           SEQ#13 4 SPD IDLE (2500)       33.5      0.91            280.0
           SEQ#13 4 SPD IDLE (NEUT)      214.4      0.59             51.9
           SEQ#13 4 SPD IDLE (DRIV)       92.6      0.70             65.3
           SEQ#13 FED 2 MODE (30)         23.6      0.11            638.9
           SEQ#13 FED 2 MODE (NEUT)      242.6      0.01             71.8

           NO FOLLOW UP LANE TEST DONE

           COMMENT : IDLE DRIVE 600 RPM.  MIXTURE SETTING:  LEAN DROP
                     650 TO 600 RPM DRIVE.

           SEQ#15 FEDERAL TEST PROC.       2.04    29.0    608.0     3.07                  13.4
           SEQ#15 50 MPH CRUISE           62.9      0.68           1295.0
           SEQ#15 HIGHWAY FUEL ECON.       1.42    30.3    442.6     3.98                  17.9
           SEQ#15 4 SPD IDLE (NEUT)       64.5      0.01             55.0
           SEQ#15 4 SPD IDLE (2500)       16.1      0.67            234.5
           SEQ#15 4 SPD IDLE (NEUT)      164.0      0.02             63.4
           SEQ#15 4 SPD IDLE (DRIV)       47.7      0.01            116.7
           SEQ#15 FED 2 MODE (30)         15.1      0.03            656.1
           SEQ#15 FED 2 MODE (NEUT)      333.0      0.01             64.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR, OIL
                     AND CRANKCASE BREATHER FILTERS, PCV VALVE AND
                     CARBURETOR.  ADJUSTED IDLE SPEED AND MIXTURE.

           SEQ#16 FEDERAL TEST PROC.       4.97    53.7    633.0     1.73                  12.1
           SEQ#16 50 MPH CRUISE           15.8      0.09            389.2
           SEQ#16 HIGHWAY FUEL ECON.       0.65    13.1    476.0     2.61                  17.8
           SEQ#16 4 SPD IDLE (NEUT)       54.6      1.60             47.5
           SEQ#16 4 SPD IDLE (2500)       33.8      1.37            126.7
           SEQ#16 4 SPD IDLE (NEUT)       38.1      0.65             54.8
           SEQ#16 4 SPD IDLE (DRIV)      102.2      2.23             80.4
           SEQ#16 FED 2 MODE (30)        104.9      1.75            181.0
           SEQ#16 FED 2 MODE (NEUT)       56.3      1.67             59.6

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:    96  CO:   2.54   GAIN:   40
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                 FUEL
VEH.                                     ---------- GRAMS / MILE ------------         ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC     CO      CO2    NOxc    CH4          MPG
----  -- ---- --- -----------------      -----  -----  ------  -----   ----          ----
5834  75 CHEV 454 10R43M

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   35  CO:  1.65   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     1.90    59.5   872.6    1.07                   9.1
          SEQ#11 50 MPH CRUISE           8.5    0.17          150.1
          SEQ#11 HIGHWAY FUEL ECON.     0.10     6.5   664.9    1.04                  13.1
          SEQ#11 4 SPD IDLE (NEUT)     172.3    5.76           16.7
          SEQ#11 4 SPD IDLE (2500)       0.0    0.09           89.4
          SEQ#11 4 SPD IDLE (NEUT)      47.0    4.11           21.6
          SEQ#11 4 SPD IDLE (DRIV)     294.8    6.74           16.6
          SEQ#11 FED 2 MODE (30)        19.7    0.76           59.9
          SEQ#11 FED 2 MODE (NEUT)      20.4    2.30           30.6

          NO FOLLOW UP LANE TEST DONE

          COMMENT : 50 RPM GAIN ACHEIVED AT STEP 8 OF PROPANE
                    CARBURETOR ADJUSTMENT A-2.  IDLE RPM 720, WITH
                    PROPANE 770 RPM.

          SEQ#12 FEDERAL TEST PROC.     1.80    30.1   867.1    1.18                   9.6
          SEQ#12 50 MPH CRUISE           0.0    0.12          174.4
          SEQ#12 HIGHWAY FUEL ECON.     0.09     3.3   659.7    1.37                  13.3
          SEQ#12 4 SPD IDLE (NEUT)     102.2    0.80           39.0
          SEQ#12 4 SPD IDLE (2500)       0.0    0.05           97.6
          SEQ#12 4 SPD IDLE (NEUT)      44.7    0.55           36.3
          SEQ#12 4 SPD IDLE (DRIV)      91.9    1.50           41.2
          SEQ#12 FED 2 MODE (30)        14.4    0.25           80.3
          SEQ#12 FED 2 MODE (NEUT)     212.4    0.69           30.1

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.     1.97    35.2   849.6    1.22                   9.7
          SEQ#15 50 MPH CRUISE           0.0    0.14          170.9
          SEQ#15 HIGHWAY FUEL ECON.     0.07     3.6   661.2    1.31                  13.3
          SEQ#15 4 SPD IDLE (NEUT)      26.9    1.38           35.6
          SEQ#15 4 SPD IDLE (2500)       0.0    0.08           87.2
          SEQ#15 4 SPD IDLE (NEUT)       1.6    0.55           37.5
          SEQ#15 4 SPD IDLE (DRIV)      53.9    1.85           40.1
          SEQ#15 FED 2 MODE (30)        12.5    0.49           74.3
          SEQ#15 FED 2 MODE (NEUT)      36.2    0.75           34.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:    3  CO:  0.55   GAIN:  70
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	HC	CO	CO2	NOxc	CH4	FUEL ECON MPG
5834	75	CHEV	454	10R43M (CON'T)						

COMMENT : MAJOR TUNE-UP. REPLACED VACUUM ADVANCE UNIT, SPARK PLUGS, OIL & OIL FILTER, AIR FILTER, CANISTER FILTER, PCV VALVE & FILTER, EFE VACUUM SOLENOID & SECONDARY VACUUM BREAK. ADJUSTED CHOKE & IDLE SPEED TO SPEC.

TEST	HC	CO	CO2	NOxc	CH4	FUEL ECON MPG
SEQ#16 FEDERAL TEST PROC.	9.20	37.4	693.9	1.57		11.4
SEQ#16 50 MPH CRUISE	21.7	0.38		190.9		
SEQ#16 HIGHWAY FUEL ECON.	0.98	10.5	521.8	1.94		16.4
SEQ#16 4 SPD IDLE (NEUT)	2029.6	0.58		16.8		
SEQ#16 4 SPD IDLE (2500)	59.6	0.13		98.1		
SEQ#16 4 SPD IDLE (NEUT)	1577.0	0.48		19.6		
SEQ#16 4 SPD IDLE (DRIV)	958.1	0.49		25.1		
SEQ#16 FED 2 MODE (30)	150.4	0.33		72.3		
SEQ#16 FED 2 MODE (NEUT)	2341.6	0.21		11.9		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 1587 CO: 0.47 GAIN: 200

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
5836	75	CHEV	400	10K43A

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 30 CO: 0.02 GAIN: 0

TEST	HC	CO	CO2	NOxc	CH4	FUEL ECON MPG
SEQ#11 FEDERAL TEST PROC.	1.11	19.3	793.7	2.88		10.7
SEQ#11 50 MPH CRUISE	10.8	0.01		403.4		
SEQ#11 HIGHWAY FUEL ECON.	0.27	0.4	573.4	3.54		15.4
SEQ#11 4 SPD IDLE (NEUT)	6.9	0.00		22.9		
SEQ#11 4 SPD IDLE (2500)	7.5	0.01		72.5		
SEQ#11 4 SPD IDLE (NEUT)	16.7	0.00		23.0		
SEQ#11 4 SPD IDLE (DRIV)	8.9	0.01		27.2		
SEQ#11 FED 2 MODE (30)	13.5	0.00		224.4		
SEQ#11 FED 2 MODE (NEUT)	26.9	0.00		24.5		

NO FOLLOW UP LANE TEST DONE

COMMENT : IDLE DRIVE 600 RPM, NEUTRAL 760 RPM, PROPANE GAIN 50 RPM. RECONNECTED EGR LINE.

TEST	HC	CO	CO2	NOxc	CH4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	1.54	20.2	717.2	2.84		11.8
SEQ#12 50 MPH CRUISE	14.4	0.01		466.0		
SEQ#12 HIGHWAY FUEL ECON.	0.27	0.3	553.6	3.61		16.0
SEQ#12 4 SPD IDLE (NEUT)	20.7	0.00		25.1		
SEQ#12 4 SPD IDLE (2500)	15.8	0.01		80.4		
SEQ#12 4 SPD IDLE (NEUT)	14.4	0.00		27.2		
SEQ#12 4 SPD IDLE (DRIV)	19.0	0.00		61.4		
SEQ#12 FED 2 MODE (30)	15.8	0.00		360.9		
SEQ#12 FED 2 MODE (NEUT)	19.0	0.00		30.9		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                      EMISSION RESULTS                  FUEL
VEH.                                      --------- GRAMS / MILE ----------             ECON
 NO.  YR MAKE CID    ENGINE FAMILY         HC       CO      CO2     NOxc     CH4        MPG
----  -- ---- --- -----------------      -----    -----   ------   -----    ----        ----
5836  75 CHEV 400 10K43A     (CON'T)

          COMMENT : IDLE DRIVE 600 RPM, CO .15%, HC 130 PPM, IDLE
                    NEUTRAL 730 RPM, CO .15%, HC 165 PPM, PROPANE
                    GAIN 100 RPM.

          SEQ#15 FEDERAL TEST PROC.     1.61     22.9    707.5    2.69                 11.9
          SEQ#15 50 MPH CRUISE          12.5     0.00            116.2
          SEQ#15 HIGHWAY FUEL ECON.     0.28      0.4    554.1    3.43                 16.0
          SEQ#15 4 SPD IDLE (NEUT)      15.4     0.00              4.1
          SEQ#15 4 SPD IDLE (2500)      13.8     0.00             20.5
          SEQ#15 4 SPD IDLE (NEUT)      13.8     0.00              4.6
          SEQ#15 4 SPD IDLE (DRIV)      13.5     0.00              9.5
          SEQ#15 FED 2 MODE (30)        11.5     0.00             72.0
          SEQ#15 FED 2 MODE (NEUT)      11.2     0.00              5.1

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, OIL, AIR,
                    CANISTER AND PCV FILTERS, PCV VALVE, ENGINE OIL,
                    SET TO SPEC.

          SEQ#16 FEDERAL TEST PROC.     1.03     12.0    710.2    3.00                 12.1
          SEQ#16 50 MPH CRUISE          13.5     0.02            767.3
          SEQ#16 HIGHWAY FUEL ECON.     0.25      0.3    542.4    3.75                 16.3
          SEQ#16 4 SPD IDLE (NEUT)      98.2     0.01             20.7
          SEQ#16 4 SPD IDLE (2500)       6.9     0.01            169.1
          SEQ#16 4 SPD IDLE (NEUT)      81.0     0.00             29.5
          SEQ#16 4 SPD IDLE (DRIV)      28.3     0.00             60.8
          SEQ#16 FED 2 MODE (30)        13.8     0.01            502.4
          SEQ#16 FED 2 MODE (NEUT)     130.7     0.01             37.3

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:   33  CO:  0.01   GAIN: 220

5837  75 CHEV 400 10K43A

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:   25  CO:  0.03   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     0.96      8.6    731.6    4.15                 11.9
          SEQ#11 50 MPH CRUISE          15.4     0.04            981.9
          SEQ#11 HIGHWAY FUEL ECON.     0.35      1.1    542.5    4.83                 16.3
          SEQ#11 4 SPD IDLE (NEUT)       1.6     0.01             37.7
          SEQ#11 4 SPD IDLE (2500)       3.0     0.05             90.2
          SEQ#11 4 SPD IDLE (NEUT)      16.1     0.00             36.8
          SEQ#11 4 SPD IDLE (DRIV)       3.0     0.01             40.2
          SEQ#11 FED 2 MODE (30)         2.6     0.03            209.9
          SEQ#11 FED 2 MODE (NEUT)      13.8     0.00             34.8

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                         AUTOMOTIVE TESTING LABORATORIES,INC.

                                TEXAS PILOT I/M STUDY


                               LISTING OF TEST RESULTS
                                     HOUSTON #2

                                                    EMISSION RESULTS                 FUEL
VEH.                                      --------- GRAMS / MILE ----------          ECON
 NO.   YR MAKE CID    ENGINE FAMILY         HC      CO       CO2     NOxc    CH4      MPG
----   -- ---- --- ------------------     -----   -----    ------   -----   ----     ----
5837   75 CHEV 400 10K43A    (CON'T)

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 40 RPM.
                        USED UNIVERSAL PROPANE METHOD

            SEQ#12 FEDERAL TEST PROC.     0.85     9.5     726.3    2.79             11.9
            SEQ#12 50 MPH CRUISE          16.1    0.02            638.9
            SEQ#12 HIGHWAY FUEL ECON.     0.20     0.5     531.0    3.87             16.7
            SEQ#12 4 SPD IDLE (NEUT)      17.4    0.00             40.2
            SEQ#12 4 SPD IDLE (2500)      13.5    0.06            100.6
            SEQ#12 4 SPD IDLE (NEUT)      12.1    0.00             42.9
            SEQ#12 4 SPD IDLE (DRIV)      23.3    0.00             90.6
            SEQ#12 FED 2 MODE (30)        11.8    0.01            295.2
            SEQ#12 FED 2 MODE (NEUT)      19.0    0.00             46.0

            NO FOLLOW UP LANE TEST DONE

            COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .14%, HC 100 PPM,
                      PROPANE GAIN 820 RPM.

            SEQ#15 FEDERAL TEST PROC.     0.76     7.2     755.5    3.17             11.5
            SEQ#15 50 MPH CRUISE          14.8    0.02            696.4
            SEQ#15 HIGHWAY FUEL ECON.     0.18     0.3     561.9    4.35             15.8
            SEQ#15 4 SPD IDLE (NEUT)      28.9    0.00             38.7
            SEQ#15 4 SPD IDLE (2500)      20.0    0.05             99.5
            SEQ#15 4 SPD IDLE (NEUT)      20.4    0.00             42.0
            SEQ#15 4 SPD IDLE (DRIV)      22.0    0.00            101.6
            SEQ#15 FED 2 MODE (30)        33.8    0.02            292.2
            SEQ#15 FED 2 MODE (NEUT)      23.6    0.00             43.0

            NO FOLLOW UP LANE TEST DONE

            COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE &
                      FILTER, PURGE CANISTER FILTER, FUEL FILTER, OIL
                      AND OIL FILTER.  SET TO  SPEC.

            SEQ#16 FEDERAL TEST PROC.     0.78     7.0     734.1    3.10             11.9
            SEQ#16 50 MPH CRUISE          18.7    0.02            749.1
            SEQ#16 HIGHWAY FUEL ECON.     0.19     0.4     546.2    4.36             16.2
            SEQ#16 4 SPD IDLE (NEUT)      16.4    0.00             42.6
            SEQ#16 4 SPD IDLE (2500)       3.0    0.01            129.3
            SEQ#16 4 SPD IDLE (NEUT)      13.1    0.00             50.2
            SEQ#16 4 SPD IDLE (DRIV)      22.3    0.00            149.6
            SEQ#16 FED 2 MODE (30)        20.4    0.02            280.0
            SEQ#16 FED 2 MODE (NEUT)      24.0    0.00             45.5

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:    19  CO:  0.02   GAIN: 158



  [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                  FUEL
VEH.                                    ---------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID   ENGINE FAMILY        HC      CO      CO2     NOxc     CH4       MPG
----   -- ---- ---  ---------------     -----   -----   ------   -----    ----      ----
5838   75 OLDS 260  30H23E

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  556   CO:  5.64   GAIN:  10

          SEQ#11 FEDERAL TEST PROC.     2.62    31.3    512.8    5.46                15.6
          SEQ#11 50 MPH CRUISE         26.9     0.02           2179.3
          SEQ#11 HIGHWAY FUEL ECON.     0.52     2.0    448.5    7.70                19.6
          SEQ#11 4 SPD IDLE (NEUT)    962.4     2.65             45.6
          SEQ#11 4 SPD IDLE (2500)     37.8     0.03            460.0
          SEQ#11 4 SPD IDLE (NEUT)    811.2     4.47             40.1
          SEQ#11 4 SPD IDLE (DRIV)    441.5     4.81             72.8
          SEQ#11 FED 2 MODE (30)       94.6     0.27           1683.3
          SEQ#11 FED 2 MODE (NEUT)    834.3     4.28             48.5

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 550 RPM, CO .4%, HC 1100 PPM.

          SEQ#13 FEDERAL TEST PROC.     1.34    11.8    610.9    6.92                14.0
          SEQ#13 50 MPH CRUISE         23.3     0.01           2339.6
          SEQ#13 HIGHWAY FUEL ECON.     0.33     1.7    508.0    9.11                17.3
          SEQ#13 4 SPD IDLE (NEUT)    145.0     0.00            187.0
          SEQ#13 4 SPD IDLE (2500)     17.7     0.02            748.1
          SEQ#13 4 SPD IDLE (NEUT)    137.4     0.00             90.0
          SEQ#13 4 SPD IDLE (DRIV)    122.8     0.00            269.9
          SEQ#13 FED 2 MODE (30)       67.1     0.12           1608.2
          SEQ#13 FED 2 MODE (NEUT)    195.7     0.01             97.5

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 600 RPM, CO .14%, HC 1000 PPM.

          SEQ#15 FEDERAL TEST PROC.     1.33     7.4    588.5    6.33                14.7
          SEQ#15 50 MPH CRUISE         18.7     0.01           2120.1
          SEQ#15 HIGHWAY FUEL ECON.     0.30     1.1    466.9    8.36                18.9
          SEQ#15 4 SPD IDLE (NEUT)    113.5     0.00            104.9
          SEQ#15 4 SPD IDLE (2500)     10.2     0.01            474.1
          SEQ#15 4 SPD IDLE (NEUT)    165.3     0.00            105.4
          SEQ#15 4 SPD IDLE (DRIV)    131.4     0.00            368.0
          SEQ#15 FED 2 MODE (30)       44.4     0.05           1550.5
          SEQ#15 FED 2 MODE (NEUT)    234.6     0.01            113.4

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  113   CO:  0.05   GAIN: 100
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS               FUEL
VEH.                                          ---------- GRAMS / MILE ----------     ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO     CO2     NOxc    CH4    MPG
----   -- ---- --- -----------------    -----   -----   -----   -----   ----   ----
5839   75 OLDS 260 30H23E

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC: 1115  CO:  3.78   GAIN:   0

          SEQ#11 FEDERAL TEST PROC.     2.62    30.0   789.5    4.12            10.5
          SEQ#11 50 MPH CRUISE         16.7     0.00           502.4
          SEQ#11 HIGHWAY FUEL ECON.     0.38     5.0   563.3    4.34            15.5
          SEQ#11 4 SPD IDLE (NEUT)   1099.6     3.67            27.1
          SEQ#11 4 SPD IDLE (2500)     76.7     0.01           299.2
          SEQ#11 4 SPD IDLE (NEUT)    906.1     2.91            37.1
          SEQ#11 4 SPD IDLE (DRIV)    357.4     5.18            42.2
          SEQ#11 FED 2 MODE (30)       64.8     0.01           475.1
          SEQ#11 FED 2 MODE (NEUT)   1092.4     3.81            37.9

          NO FOLLOW UP LANE TEST DONE


          COMMENT : CORRECTED VACUUM HOSE ROUTINGS AND REPAIRED CHECK
                    VALVE.PROPANE GAIN 50 RPM.

          SEQ#12 FEDERAL TEST PROC.     2.07     8.8   589.1    3.16            14.6
          SEQ#12 50 MPH CRUISE         32.9     0.00           734.9
          SEQ#12 HIGHWAY FUEL ECON.     0.23     0.5   467.4    4.03            18.9
          SEQ#12 4 SPD IDLE (NEUT)    108.2     0.00            80.5
          SEQ#12 4 SPD IDLE (2500)    129.7     0.00           296.2
          SEQ#12 4 SPD IDLE (NEUT)    231.9     0.00           100.6
          SEQ#12 4 SPD IDLE (DRIV)    241.9     0.00           360.9
          SEQ#12 FED 2 MODE (30)      166.7     0.01           589.4
          SEQ#12 FED 2 MODE (NEUT)    342.3     0.00            95.2

          NO FOLLOW UP LANE TEST DONE


          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.IDLE
                    NEUTRAL 720 RPM,CO .5%,HC 1120 PPM.

          SEQ#13 FEDERAL TEST PROC.     1.76    10.2   611.4    3.41            14.0
          SEQ#13 50 MPH CRUISE         26.0     0.00           749.0
          SEQ#13 HIGHWAY FUEL ECON.     0.22     0.3   449.2    3.91            19.7
          SEQ#13 4 SPD IDLE (NEUT)     34.2     0.00            84.6
          SEQ#13 4 SPD IDLE (2500)     82.3     0.00           325.5
          SEQ#13 4 SPD IDLE (NEUT)    123.8     0.00            90.3
          SEQ#13 4 SPD IDLE (DRIV)    137.4     0.00           421.6
          SEQ#13 FED 2 MODE (30)      125.1     0.01           613.6
          SEQ#13 FED 2 MODE (NEUT)    318.7     0.00           106.7

          NO FOLLOW UP LANE TEST DONE
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                   EMISSION RESULTS                  FUEL
VEH.                                   ---------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY     HC     CO     CO2     NOxc    CH4    MPG
----   -- ---- ---  ---------------   -----  -----  ------  -----   ----   ----
5839   75 OLDS 260  30H23E    (CON'T)

          COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

          SEQ#15 FEDERAL TEST PROC.     2.14   11.2   609.1    3.23          14.0
          SEQ#15 50 MPH CRUISE          45.7   0.02          691.5
          SEQ#15 HIGHWAY FUEL ECON.     0.23    0.4   466.8    4.24          19.0
          SEQ#15 4 SPD IDLE (NEUT)      90.9   0.02           37.0
          SEQ#15 4 SPD IDLE (2500)     140.0   0.02          312.4
          SEQ#15 4 SPD IDLE (NEUT)     185.4   0.02           36.0
          SEQ#15 4 SPD IDLE (DRIV)     199.1   0.02           84.9
          SEQ#15 FED 2 MODE (30)       143.4   0.01          590.4
          SEQ#15 FED 2 MODE (NEUT)     340.2   0.01           39.8

          NO FOLLOW UP LANE TEST DONE

          COMMENT : MAJOR TUNE-UP.REPLACED SPARK PLUGS,AIR FILTER,
                    FUEL FILTER,PCV VALVE,CRANKCASE BREATHER FILTER,
                    ENGINE OIL & FILTER,CARBON CANISTER FILTER,
                    ADJUSTED CHOKE,IDLE SPEED & MIXTURE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.     1.22   13.0   549.3    3.87          15.5
          SEQ#16 50 MPH CRUISE          34.5   0.01         1209.9
          SEQ#16 HIGHWAY FUEL ECON.     0.20    0.6   454.7    5.33          19.5
          SEQ#16 4 SPD IDLE (NEUT)      39.4   0.00           69.3
          SEQ#16 4 SPD IDLE (2500)     101.5   0.00          421.6
          SEQ#16 4 SPD IDLE (NEUT)      69.1   0.00           70.1
          SEQ#16 4 SPD IDLE (DRIV)      22.7   0.00          194.7
          SEQ#16 FED 2 MODE (30)       153.0   0.01         1017.0
          SEQ#16 FED 2 MODE (NEUT)     208.1   0.00           82.9

          FOLLOW UP LANE TEST:
          CAT: P    FUEL: P
          HC:  185  CO:  0.03   GAIN: 177

5842   75 OLDS 455  30S43

          PRELIMINARY LANE TEST:
          CAT: P    FUEL: P
          HC:  350  CO:  3.83   GAIN:  10

          SEQ#11 FEDERAL TEST PROC.     2.60   42.4   669.1    2.07          11.9
          SEQ#11 50 MPH CRUISE          15.1   0.02          507.5
          SEQ#11 HIGHWAY FUEL ECON.     0.50    5.2   490.4    3.27          17.7
          SEQ#11 4 SPD IDLE (NEUT)     361.7   3.42           37.7
          SEQ#11 4 SPD IDLE (2500)      78.0   1.44          119.8
          SEQ#11 4 SPD IDLE (NEUT)     295.6   3.31           42.7
          SEQ#11 4 SPD IDLE (DRIV)     265.0   3.77           48.3
          SEQ#11 FED 2 MODE (30)        68.5   0.05          267.9
          SEQ#11 FED 2 MODE (NEUT)     281.6   3.18           42.5

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                       EMISSION RESULTS                  FUEL
VEH.                                        ---------- GRAMS / MILE ----------           ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc    CH4         MPG
----   -- ---- ---  -----------------      -----   -----   ------   -----   ----        ----
5842   75 OLDS 455  30S43     (CON'T)

           COMMENT : ADJUSTED IDLE DRIVE 550 RPM, CO .28%, HC 570 PPM.
                       USED UNIVERSAL CO METHOD.

           SEQ#13 FEDERAL TEST PROC.     1.40    11.6    679.5    2.03                12.6
           SEQ#13 50 MPH CRUISE         10.5     0.02           421.6
           SEQ#13 HIGHWAY FUEL ECON.     0.35     3.1    477.9    3.01                18.3
           SEQ#13 4 SPD IDLE (NEUT)    116.5     0.01            44.1
           SEQ#13 4 SPD IDLE (2500)      6.9     0.06           159.6
           SEQ#13 4 SPD IDLE (NEUT)     92.3     0.01            51.0
           SEQ#13 4 SPD IDLE (DRIV)     53.9     0.01            66.6
           SEQ#13 FED 2 MODE (30)       36.5     0.01           236.6
           SEQ#13 FED 2 MODE (NEUT)    133.4     0.01            45.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE DRIVE 550 RPM, CO .1%, HC 290 PPM.
                     ADJUSTED TIMING PRELIMINARY TO MIXTURE.

           SEQ#15 FEDERAL TEST PROC.     1.42    15.7    696.8    1.50                12.2
           SEQ#15 50 MPH CRUISE          4.3     0.02           356.9
           SEQ#15 HIGHWAY FUEL ECON.     0.27     3.8    494.4    2.40                17.7
           SEQ#15 4 SPD IDLE (NEUT)    148.4     0.01            34.4
           SEQ#15 4 SPD IDLE (2500)      3.3     0.04           140.3
           SEQ#15 4 SPD IDLE (NEUT)    172.0     0.01            40.2
           SEQ#15 4 SPD IDLE (DRIV)    118.8     0.01            44.6
           SEQ#15 FED 2 MODE (30)       30.2     0.01           170.3
           SEQ#15 FED 2 MODE (NEUT)    184.7     0.01            34.8

           NO FOLLOW UP LANE TEST DONE

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                     AND FILTER, OIL AND OIL FILTER, FUEL FILTER,
                     PURGE CANISTER, AIR FILTER ELEMENT AND HOT AIR
                     TUBE.

           SEQ#16 FEDERAL TEST PROC.     1.66    14.8    672.6    1.42                12.7
           SEQ#16 50 MPH CRUISE          9.5     0.03           341.7
           SEQ#16 HIGHWAY FUEL ECON.     0.48     6.7    465.6    2.37                18.6
           SEQ#16 4 SPD IDLE (NEUT)    198.7     0.01            31.1
           SEQ#16 4 SPD IDLE (2500)     10.2     0.05           136.7
           SEQ#16 4 SPD IDLE (NEUT)    155.7     0.01            35.7
           SEQ#16 4 SPD IDLE (DRIV)    100.9     0.01            41.9
           SEQ#16 FED 2 MODE (30)       33.5     0.01           196.8
           SEQ#16 FED 2 MODE (NEUT)    214.1     0.00            33.5

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:   197  CO:   0.00   GAIN:   60
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                    AUTOMOTIVE TESTING LABORATORIES,INC.

                           TEXAS PILOT I/M STUDY


                          LISTING OF TEST RESULTS
                                HOUSTON #2
                                                EMISSION RESULTS               FUEL
VEH.                                   --------- GRAMS / MILE ----------      ECON
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc   CH4   MPG
----   -- ---- ---  ---------------     -----   -----   ------   -----  ----   ---
5843   75 PONT 350  40J23-A

              PRELIMINARY LANE TEST:
              CAT: P    FUEL: P
              HC:  215  CO:  7.97   GAIN:   0

              SEQ#11 FEDERAL TEST PROC.   3.37   100.0    573.9    4.21         12.0
              SEQ#11 50 MPH CRUISE        10.2    0.02           1440.3
              SEQ#11 HIGHWAY FUEL ECON.   0.54    10.0    445.6    5.02         19.2
              SEQ#11 4 SPD IDLE (NEUT)   237.9    8.00             45.2
              SEQ#11 4 SPD IDLE (2500)    53.0    0.83            244.6
              SEQ#11 4 SPD IDLE (NEUT)   215.1    7.84             53.1
              SEQ#11 4 SPD IDLE (DRIV)   243.6    7.77             66.8
              SEQ#11 FED 2 MODE (30)     130.4    1.79            829.0
              SEQ#11 FED 2 MODE (NEUT)   215.8    7.49             53.3

              NO FOLLOW UP LANE TEST DONE


              COMMENT : PRE ADJUSTMENT PROCEDURE, REPLACED EGR, EFE, TAC
                        CTO SWITCH, 0 GAIN, REPLACED AIR FILTER ELEMENT.
                        ADJUSTED IDLE DRIVE 600 RPM, PROPANE GAIN 50 RPM.
                         USED UNIVERSAL PROPANE METHOD.

              SEQ#12 FEDERAL TEST PROC.   1.86    30.9    635.3    2.29         12.9
              SEQ#12 50 MPH CRUISE         2.6    0.01            495.4
              SEQ#12 HIGHWAY FUEL ECON.   0.22     3.0    447.0    2.37         19.6
              SEQ#12 4 SPD IDLE (NEUT)    18.4    0.01             57.2
              SEQ#12 4 SPD IDLE (2500)     5.6    0.32             88.3
              SEQ#12 4 SPD IDLE (NEUT)    26.9    0.01             64.6
              SEQ#12 4 SPD IDLE (DRIV)     7.9    0.00            143.4
              SEQ#12 FED 2 MODE (30)      25.3    0.05            211.4
              SEQ#12 FED 2 MODE (NEUT)    47.4    0.01             60.7

              NO FOLLOW UP LANE TEST DONE


              COMMENT : IDLE CO OF .2% WAS ACHEIVED AT STEP 5C OF
                        UNIVERSAL IDLE CO ADJUSTMENT PROCEDURE A-2.

              SEQ#13 FEDERAL TEST PROC.   2.20    40.1    609.7    2.14         13.1
              SEQ#13 50 MPH CRUISE         7.9    0.00            454.9
              SEQ#13 HIGHWAY FUEL ECON.   0.30     4.5    449.7    2.35         19.4
              SEQ#13 4 SPD IDLE (NEUT)   137.4    0.97             50.2
              SEQ#13 4 SPD IDLE (2500)    34.8    0.75            108.0
              SEQ#13 4 SPD IDLE (NEUT)   127.7    0.84             54.2
              SEQ#13 4 SPD IDLE (DRIV)    88.6    0.22             81.8
              SEQ#13 FED 2 MODE (30)      76.4    0.28            222.7
              SEQ#13 FED 2 MODE (NEUT)    98.9    0.52             50.0

              NO FOLLOW UP LANE TEST DONE




 [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
```

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY	EMISSION RESULTS GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
5843	75	PONT	350	40J23-A (CON'T)						

COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO SPEC.

SEQ#15 FEDERAL TEST PROC.	1.83	30.1	622.5	2.18		13.1
SEQ#15 50 MPH CRUISE	7.2	0.01		464.0		
SEQ#15 HIGHWAY FUEL ECON.	0.37	7.5	433.6	2.19		19.9
SEQ#15 4 SPD IDLE (NEUT)	71.4	0.58		60.9		
SEQ#15 4 SPD IDLE (2500)	26.3	0.91		109.3		
SEQ#15 4 SPD IDLE (NEUT)	74.4	1.31		66.5		
SEQ#15 4 SPD IDLE (DRIV)	91.3	0.35		149.3		
SEQ#15 FED 2 MODE (30)	77.1	0.31		225.4		
SEQ#15 FED 2 MODE (NEUT)	90.6	0.92		60.9		

NO FOLLOW UP LANE TEST DONE

COMMENT : MAJOR TUNE-UP. REPLACED SPARK PLUGS, FUEL FILTER, OIL AND OIL FILTER, PURGE CANISTER FILTER, PCV VALVE AND FILTER, SET TO SPEC.

SEQ#16 FEDERAL TEST PROC.	1.89	33.0	646.9	2.36		12.6
SEQ#16 50 MPH CRUISE	3.9	0.01		470.1		
SEQ#16 HIGHWAY FUEL ECON.	0.22	4.7	440.3	2.41		19.8
SEQ#16 4 SPD IDLE (NEUT)	70.1	1.27		62.4		
SEQ#16 4 SPD IDLE (2500)	28.9	0.62		114.9		
SEQ#16 4 SPD IDLE (NEUT)	63.5	1.17		68.9		
SEQ#16 4 SPD IDLE (DRIV)	113.8	1.03		192.2		
SEQ#16 FED 2 MODE (30)	73.4	0.19		224.7		
SEQ#16 FED 2 MODE (NEUT)	73.4	1.04		63.8		

FOLLOW UP LANE TEST:
CAT: P FUEL: P
HC: 96 CO: 1.76 GAIN: 80

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY
5845	75	PONT	400	20K43

PRELIMINARY LANE TEST:
CAT: P FUEL: P
HC: 122 CO: 4.08 GAIN: 0

SEQ#11 FEDERAL TEST PROC.	1.46	30.4	845.6	1.40		9.9
SEQ#11 50 MPH CRUISE	0.0	0.01		244.6		
SEQ#11 HIGHWAY FUEL ECON.	0.10	2.0	576.9	1.13		15.3
SEQ#11 4 SPD IDLE (NEUT)	129.1	3.96		44.1		
SEQ#11 4 SPD IDLE (2500)	8.2	0.02		107.7		
SEQ#11 4 SPD IDLE (NEUT)	106.5	3.99		53.2		
SEQ#11 4 SPD IDLE (DRIV)	120.8	3.08		64.1		
SEQ#11 FED 2 MODE (30)	7.9	0.01		136.5		
SEQ#11 FED 2 MODE (NEUT)	102.5	3.28		54.9		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

VEH. NO.	YR	MAKE	CID	ENGINE FAMILY						
5845	75	PONT	400	20K43 (CON'T)						

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, PROPANE GAIN 50 RPM. USED UNIVERSAL PROPANE METHOD.

	EMISSION RESULTS — GRAMS / MILE HC	CO	CO_2	NO_{xc}	CH_4	FUEL ECON MPG
SEQ#12 FEDERAL TEST PROC.	2.02	22.4	666.7	2.07		12.5
SEQ#12 50 MPH CRUISE	27.9	0.01		460.0		
SEQ#12 HIGHWAY FUEL ECON.	0.28	1.4	479.8	2.13		18.4
SEQ#12 4 SPD IDLE (NEUT)	274.2	0.54		49.8		
SEQ#12 4 SPD IDLE (2500)	[illegible]2.9	0.03		126.5		
SEQ#12 4 SPD IDLE (NEUT)	[illegible]3.5	1.24		50.9		
SEQ#12 4 SPD IDLE (DRIV)	[illegible]83.4	0.57		86.5		
SEQ#12 FED 2 MODE (30)	48.7	0.00		411.4		
SEQ#12 FED 2 MODE (NEUT)	363.9	0.48		54.1		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .4%. USED UNIVERSAL CO METHOD.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#13 FEDERAL TEST PROC.	1.23	11.7	690.9	2.04		12.4
SEQ#13 50 MPH CRUISE	20.7	0.01		411.4		
SEQ#13 HIGHWAY FUEL ECON.	0.19	0.6	485.7	2.17		18.2
SEQ#13 4 SPD IDLE (NEUT)	61.9	0.01		56.3		
SEQ#13 4 SPD IDLE (2500)	71.8	0.01		130.3		
SEQ#13 4 SPD IDLE (NEUT)	91.9	0.05		42.7		
SEQ#13 4 SPD IDLE (DRIV)	20.4	0.01		99.5		
SEQ#13 FED 2 MODE (30)	38.8	0.01		397.3		
SEQ#13 FED 2 MODE (NEUT)	88.0	0.01		64.0		

NO FOLLOW UP LANE TEST DONE

COMMENT : ADJUSTED IDLE SPEED ONLY.

	HC	CO	CO_2	NO_{xc}	CH_4	MPG
SEQ#15 FEDERAL TEST PROC.	1.27	11.1	700.4	2.07		12.3
SEQ#15 50 MPH CRUISE	14.1	0.01		387.2		
SEQ#15 HIGHWAY FUEL ECON.	0.17	0.9	485.9	2.11		18.2
SEQ#15 4 SPD IDLE (NEUT)	94.6	0.01		59.6		
SEQ#15 4 SPD IDLE (2500)	73.1	0.05		122.4		
SEQ#15 4 SPD IDLE (NEUT)	69.1	0.01		65.6		
SEQ#15 4 SPD IDLE (DRIV)	31.2	0.01		105.2		
SEQ#15 FED 2 MODE (30)	35.2	0.01		387.2		
SEQ#15 FED 2 MODE (NEUT)	144.7	0.01		66.8		

NO FOLLOW UP LANE TEST DONE

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                 EMISSION RESULTS              FUEL
VEH.                                    --------- GRAMS / MILE ----------      ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2     NOxc   CH4    MPG
----   -- ---- --- ----------------    -----   -----   ------   -----  ----   ----
5845   75 PONT 400 20K43    (CON'T)

          COMMENT : MAJOR TUNE-UP.REPLACED AIR FILTER,FUEL FILTER,PCV
                    VALVE,CRANKCASE FILTER,OIL AND OIL FILTER,CARBON
                    CANISTER FILTER,HOT AIR INLET TUBE,SPARK PLUGS,
                    ADJUSTED TIMING,IDLE SPEED AND MIXTURE TO
                    SPEC.ADJUSTED CHOKE TO SPEC.

          SEQ#16 FEDERAL TEST PROC.    1.38     8.2    670.5    2.52          12.9
          SEQ#16 50 MPH CRUISE         13.5    0.01            507.5
          SEQ#16 HIGHWAY FUEL ECON.    0.14     0.3    468.3    2.78          18.9
          SEQ#16 4 SPD IDLE (NEUT)     88.3    0.00             30.9
          SEQ#16 4 SPD IDLE (2500)     87.6    0.01            138.0
          SEQ#16 4 SPD IDLE (NEUT)    104.9    0.00             22.0
          SEQ#16 4 SPD IDLE (DRIV)     69.8    0.00             59.8
          SEQ#16 FED 2 MODE (30)       25.0    0.00            412.5
          SEQ#16 FED 2 MODE (NEUT)    245.3    0.00             12.2

          FOLLOW UP LANE TEST:
          CAT: P     FUEL: P
          HC:  134   CO:  0.02   GAIN: 491

5846   75 PONT 400 20K43

          PRELIMINARY LANE TEST:
          CAT: P     FUEL: P
          HC:  939   CO:  1.30   GAIN:  20

          SEQ#11 FEDERAL TEST PROC.    7.44   131.7    676.8    3.25           9.8
          SEQ#11 50 MPH CRUISE        132.1    2.59            673.3
          SEQ#11 HIGHWAY FUEL ECON.    3.06    64.6    496.4    4.16          14.6
          SEQ#11 4 SPD IDLE (NEUT)   1001.0    0.94             24.1
          SEQ#11 4 SPD IDLE (2500)     90.6    2.65            118.0
          SEQ#11 4 SPD IDLE (NEUT)   1221.7    1.64             22.1
          SEQ#11 4 SPD IDLE (DRIV)    512.8    3.94             24.6
          SEQ#11 FED 2 MODE (30)      238.6    3.44            215.3
          SEQ#11 FED 2 MODE (NEUT)   1386.1    1.70             24.0

          NO FOLLOW UP LANE TEST DONE

          COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .15%, PRE
                    ADJUSTMENT, INSTALLED NEW VACUUM LINE TO EGR.
                    USED UNIVERSAL CO METHOD.

          SEQ#13 FEDERAL TEST PROC.    5.40    86.3    733.6    1.07          10.0
          SEQ#13 50 MPH CRUISE        114.5    3.50            172.4
          SEQ#13 HIGHWAY FUEL ECON.    2.43    57.2    512.2    1.33          14.6
          SEQ#13 4 SPD IDLE (NEUT)     29.6    0.04            180.3
          SEQ#13 4 SPD IDLE (2500)     80.0    2.26             72.3
          SEQ#13 4 SPD IDLE (NEUT)    225.5    0.02            109.8
          SEQ#13 4 SPD IDLE (DRIV)     59.6    0.01            159.3
          SEQ#13 FED 2 MODE (30)      194.7    2.79            136.0
          SEQ#13 FED 2 MODE (NEUT)    838.1    0.02             73.1

          NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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                                 LISTING OF TEST RESULTS
                                       HOUSTON #2

                                                      EMISSION RESULTS                    FUEL
VEH.                                        --------- GRAMS / MILE ----------            ECON
 NO.   YR MAKE CID    ENGINE FAMILY          HC      CO      CO2     NOxc    CH4       MPG
----   -- ---- --- ------------------     -----   -----   ------   -----   ----      ----
5846   75 PONT 400 20K43     (CON'T)

           COMMENT : ADJUSTED IDLE DRIVE 650 RPM, CO .5%, HC 600 PPM,
                     PROPANE GAIN 120 RPM.

           SEQ#15 FEDERAL TEST PROC.   4.69    79.6    734.9    1.07               10.1
           SEQ#15 50 MPH CRUISE        98.6    2.42           147.0
           SEQ#15 HIGHWAY FUEL ECON.   2.31    59.4    493.1    1.24               14.9
           SEQ#15 4 SPD IDLE (NEUT)   111.8    0.00            65.5
           SEQ#15 4 SPD IDLE (2500)    54.6    1.65            63.2
           SEQ#15 4 SPD IDLE (NEUT)   203.1    0.01            65.4
           SEQ#15 4 SPD IDLE (DRIV)    37.5    0.00            98.3
           SEQ#15 FED 2 MODE (30)     166.3    2.26           228.3
           SEQ#15 FED 2 MODE (NEUT)   615.6    0.01            53.4

           NO FOLLOW UP LANE TEST DONE


           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, PCV VALVE
                     AND FILTER, PURGE CANISTER FILTER, FUEL FILTER,
                     OIL AND OIL FILTER, AIR FILTER, ADJUSTED TIMING,
                     SET TO SPEC.

           SEQ#16 FEDERAL TEST PROC.   4.07    63.8    747.2    1.15               10.3
           SEQ#16 50 MPH CRUISE       107.2    1.57           227.8
           SEQ#16 HIGHWAY FUEL ECON.   1.99    50.7    511.2    1.34               14.9
           SEQ#16 4 SPD IDLE (NEUT)   108.8    0.01            65.7
           SEQ#16 4 SPD IDLE (2500)    49.3    1.91            85.1
           SEQ#16 4 SPD IDLE (NEUT)   278.1    0.01            73.1
           SEQ#16 4 SPD IDLE (DRIV)    58.9    0.01           124.4
           SEQ#16 FED 2 MODE (30)     193.7    2.51           280.0
           SEQ#16 FED 2 MODE (NEUT)   845.1    0.01            67.8

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:  558  CO:  0.06   GAIN: 171

5847   75 FIAT 107 132

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  320  CO:  6.60   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.   5.79    92.1    328.5    1.66               18.1
           SEQ#11 50 MPH CRUISE       130.1    2.85           976.9
           SEQ#11 HIGHWAY FUEL ECON.   2.26    45.7    237.6    2.28               28.0
           SEQ#11 4 SPD IDLE (NEUT)   269.2    7.45            41.9
           SEQ#11 4 SPD IDLE (2500)   195.0    6.13            99.8
           SEQ#11 4 SPD IDLE (NEUT)   267.1    7.20            46.4
           SEQ#11 FED 2 MODE (30)     150.4    3.14           624.8
           SEQ#11 FED 2 MODE (NEUT)   261.1    8.15            40.9

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:  266  CO:  7.20   GAIN:   0


   [NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]
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AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                  FUEL
VEH.                                       --------- GRAMS / MILE -----------         ECON
 NO.   YR MAKE CID    ENGINE FAMILY      HC      CO      CO2      NOxc    CH4    MPG
----   -- ---- ---  ----------------   -----   -----   ------    -----   ----   ----
5847   75 FIAT 107 132     (CON'T)

            COMMENT : IDLE RPM 850, WITH PROPANE 900 RPM.

            SEQ#12 FEDERAL TEST PROC.   4.31    62.8    360.3     2.08            18.8
            SEQ#12 50 MPH CRUISE       116.8    1.96             1247.5
            SEQ#12 HIGHWAY FUEL ECON.   1.93    28.9    258.3     2.92            28.7
            SEQ#12 4 SPD IDLE (NEUT)   127.4    0.33               74.5
            SEQ#12 4 SPD IDLE (2500)   134.7    3.66              132.6
            SEQ#12 4 SPD IDLE (NEUT)    93.3    0.35               81.6
            SEQ#12 FED 2 MODE (30)     109.5    1.80              896.8
            SEQ#12 FED 2 MODE (NEUT)    98.9    0.50               84.1

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:    92  CO:   0.34   GAIN:  70

            COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

            SEQ#13 FEDERAL TEST PROC.   4.26    69.1    368.7     2.09            18.1
            SEQ#13 50 MPH CRUISE       114.1    1.93             1172.3
            SEQ#13 HIGHWAY FUEL ECON.   1.85    30.8    253.1     2.75            28.9
            SEQ#13 4 SPD IDLE (NEUT)   118.8    0.90               77.6
            SEQ#13 4 SPD IDLE (2500)   155.3    4.58              106.7
            SEQ#13 4 SPD IDLE (NEUT)   177.0    4.75               65.8
            SEQ#13 FED 2 MODE (30)     122.4    2.19              727.9
            SEQ#13 FED 2 MODE (NEUT)   141.4    4.79               72.4

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:   175  CO:   4.78   GAIN:  80

            COMMENT : ADJUSTED IDLE SPEED & MIXTURE TO SPEC.

            SEQ#15 FEDERAL TEST PROC.   4.08    61.8    360.6     2.10            18.9
            SEQ#15 50 MPH CRUISE       108.8    1.68             1257.5
            SEQ#15 HIGHWAY FUEL ECON.   1.83    28.7    255.3     2.86            29.0
            SEQ#15 4 SPD IDLE (NEUT)   127.7    0.28               83.3
            SEQ#15 4 SPD IDLE (2500)   140.7    4.28              119.5
            SEQ#15 4 SPD IDLE (NEUT)   108.2    0.26               82.4
            SEQ#15 FED 2 MODE (30)     109.8    2.13              764.3
            SEQ#15 FED 2 MODE (NEUT)    86.6    0.59               86.6

            FOLLOW UP LANE TEST:
            CAT: P     FUEL: P
            HC:   109  CO:   0.26   GAIN:  80
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES,INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                              EMISSION RESULTS           FUEL
VEH.                                  --------- GRAMS / MILE ----------  ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC    CO     CO2   NOxc   CH4   MPG
---- -- ---- --- ------------------ ----- ----- ------ ----- ---- ----
5847  75 FIAT 107 132    (CON'T)

           COMMENT : MAJOR TUNE-UP.  REPLACED SPARK PLUGS, AIR & FUEL
                     FILTERS, DISTRIBUTOR POINTS, CONDENSERS.
                     ADJUSTED TIMING & DWELL TO SPEC.  INSTALLED AIR
                     PUMP & BELTS & HOSES, THERMAL SWITCHES, SEALING
                     RINGS FOR EGR.

           SEQ#16 FEDERAL TEST PROC.    3.46   60.5   368.3   2.23        18.7
           SEQ#16 50 MPH CRUISE         86.3   1.53         1480.4
           SEQ#16 HIGHWAY FUEL ECON.    1.32   23.0   284.0   3.44        27.4
           SEQ#16 4 SPD IDLE (NEUT)     63.8   0.43           85.2
           SEQ#16 4 SPD IDLE (2500)     64.5   2.83          116.5
           SEQ#16 4 SPD IDLE (NEUT)     57.9   0.47           88.2
           SEQ#16 FED 2 MODE (30)       75.1   1.73         1034.5
           SEQ#16 FED 2 MODE (NEUT)     57.9   0.47           89.3

           FOLLOW UP LANE TEST:
           CAT: P    FUEL: P
           HC:   59  CO:  0.47   GAIN: 100

5850  75 DATS 085 N-081

           PRELIMINARY LANE TEST:
           CAT: P    FUEL: P
           HC:  418  CO:  7.70   GAIN:   0

           SEQ#11 FEDERAL TEST PROC.    2.97   19.4   303.0   4.78        25.9
           SEQ#11 50 MPH CRUISE         77.7   0.17         1833.6
           SEQ#11 HIGHWAY FUEL ECON.    1.16    5.6   223.9   5.51        37.5
           SEQ#11 4 SPD IDLE (NEUT)    184.7   3.24           25.4
           SEQ#11 4 SPD IDLE (2500)     30.2   0.68           94.7
           SEQ#11 4 SPD IDLE (NEUT)    181.0   3.35           25.8
           SEQ#11 FED 2 MODE (30)       79.7   0.08         1457.9
           SEQ#11 FED 2 MODE (NEUT)    176.0   3.37           31.2

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE NEUTRAL 700 RPM, PROPANE GAIN 50
                     RPM, USED UNIVERSAL PROPANE METHOD.

           SEQ#12 FEDERAL TEST PROC.    2.79   12.6   297.1   4.76        27.2
           SEQ#12 50 MPH CRUISE         79.0   0.20         2086.6
           SEQ#12 HIGHWAY FUEL ECON.    1.29    5.1   244.5   6.51        34.6
           SEQ#12 4 SPD IDLE (NEUT)    235.2   0.44           26.6
           SEQ#12 4 SPD IDLE (2500)     38.1   0.28          132.4
           SEQ#12 4 SPD IDLE (NEUT)    161.7   0.47           28.7
           SEQ#12 FED 2 MODE (30)      145.7   0.08         1588.1
           SEQ#12 FED 2 MODE (NEUT)    136.7   0.68           36.3

           NO FOLLOW UP LANE TEST DONE
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[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                     EMISSION RESULTS                   FUEL
                                          ---------- GRAMS / MILE -----------           ECON
VEH.
 NO.   YR MAKE CID    ENGINE FAMILY        HC      CO      CO2     NOxc    CH4           MPG
----   -- ---- --- ------------------     -----   -----   ------  -----   ----           ----
5850   75 DATS 085 N-081     (CON'T)

           COMMENT : ADJUSTED IDLE NEUTRAL 700 RPM, IDLE CO .3%, HC
                     400 PPM.  USED UNIVERSAL PROPANE METHOD.

           SEQ#13 FEDERAL TEST PROC.     2.71     8.8    299.9    5.06                   27.5
           SEQ#13 50 MPH CRUISE          83.7    0.22           1968.9
           SEQ#13 HIGHWAY FUEL ECON.     1.17     5.6    232.3    6.09                   36.3
           SEQ#13 4 SPD IDLE (NEUT)     596.3    0.11             19.0
           SEQ#13 4 SPD IDLE (2500)      50.3    0.22            141.4
           SEQ#13 4 SPD IDLE (NEUT)     445.9    0.11             22.4
           SEQ#13 FED 2 MODE (30)       100.5    0.08           1783.5
           SEQ#13 FED 2 MODE (NEUT)     291.3    0.10             30.1

           NO FOLLOW UP LANE TEST DONE

           COMMENT : ADJUSTED IDLE MIXTURE AND SPEED TO SPEC.  LEAN
                     DROP OF 815 TO 750 IN NEUTRAL.  HC 320 PPM, CO
                     .15%.

           SEQ#15 FEDERAL TEST PROC.     2.70    10.5    307.9    4.81                   26.7
           SEQ#15 50 MPH CRUISE          84.7    0.18           2076.6
           SEQ#15 HIGHWAY FUEL ECON.     1.18     5.6    246.3    6.64                   34.3
           SEQ#15 4 SPD IDLE (NEUT)     271.6    0.14             30.0
           SEQ#15 4 SPD IDLE (2500)      33.2    0.28            133.1
           SEQ#15 4 SPD IDLE (NEUT)     165.0    0.15             32.8
           SEQ#15 FED 2 MODE (30)        86.0    0.08           1708.4
           SEQ#15 FED 2 MODE (NEUT)     123.1    0.16             40.4

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:  225   CO:  0.44    GAIN:  95

           COMMENT : MAJOR TUNE-UP.  REPLACED AIR, FUEL, OIL AND
                     CRANKCASE BREATHER FILTERS, SPARK PLUGS, POINTS,
                     CONDENSER, DISTRIBUTOR CAP, ROTOR, PCV VALVE,
                     ENGINE OIL.  ADJUSTED TIMING, DWELL, IDLE MIXTURE
                     AND SPEED.

           SEQ#16 FEDERAL TEST PROC.     2.73     8.9    311.6    4.69                   26.6
           SEQ#16 50 MPH CRUISE          67.8    0.11           1725.9
           SEQ#16 HIGHWAY FUEL ECON.     1.08     3.1    230.8    5.78                   37.1
           SEQ#16 4 SPD IDLE (NEUT)     166.3    0.12             28.6
           SEQ#16 4 SPD IDLE (2500)      35.2    0.16            117.2
           SEQ#16 4 SPD IDLE (NEUT)     163.0    0.13             28.9
           SEQ#16 FED 2 MODE (30)        88.6    0.08           1442.8
           SEQ#16 FED 2 MODE (NEUT)     152.3    0.13             37.2

           FOLLOW UP LANE TEST:
           CAT: P     FUEL: P
           HC:  196   CO:  0.71    GAIN:  70
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

AUTOMOTIVE TESTING LABORATORIES, INC.

TEXAS PILOT I/M STUDY

LISTING OF TEST RESULTS
HOUSTON #2

```
                                                    EMISSION RESULTS                  FUEL
VEH.                                    ---------- GRAMS / MILE -----------           ECON
 NO.  YR MAKE CID    ENGINE FAMILY       HC     CO     CO2    NOxc   CH4               MPG
----  -- ---- --- -----------------    -----  -----  ------  -----  ----              ----
5852  75 TOYO 096 2T-C

            PRELIMINARY LANE TEST:
            CAT: P    FUEL: P
            HC:  447  CO:  1.93   GAIN:   0

            SEQ#11 FEDERAL TEST PROC.   2.04   19.3   366.6   2.65                      22.0
            SEQ#11 50 MPH CRUISE        41.7   0.36          1239.9
            SEQ#11 HIGHWAY FUEL ECON.   0.67    7.8   262.0   4.64                      32.1
            SEQ#11 4 SPD IDLE (NEUT)     9.8   0.25           26.2
            SEQ#11 4 SPD IDLE (2500)     3.0   0.15           41.2
            SEQ#11 4 SPD IDLE (NEUT)   432.6   0.80           21.9
            SEQ#11 FED 2 MODE (30)      66.5   0.56          734.9
            SEQ#11 FED 2 MODE (NEUT)   419.2   0.86           25.2

            NO FOLLOW UP LANE TEST DONE

            COMMENT : IDLE SPEED 850 IN NEUTRAL, PROPANE GAIN 50 RPM.
                      ACHEIVED AT STEP 6C OF PROPANE CARB ADJUSTMENT
                      PROCEDURE M-1.  AIR FILTER WAS REPLACED DURING
                      PRE-ADJUSTMENT BUT DID NOT RESULT IN ANY PROPANE
                      GAIN.

            SEQ#12 FEDERAL TEST PROC.   1.75   17.0   373.6   3.05                      21.9
            SEQ#12 50 MPH CRUISE        34.8   0.30          1272.5
            SEQ#12 HIGHWAY FUEL ECON.   0.65    7.2   263.1   4.98                      32.1
            SEQ#12 4 SPD IDLE (NEUT)   348.4   0.12           18.5
            SEQ#12 4 SPD IDLE (2500)    16.4   0.20           37.4
            SEQ#12 4 SPD IDLE (NEUT)   352.8   0.13           21.3
            SEQ#12 FED 2 MODE (30)      55.6   0.47          856.7
            SEQ#12 FED 2 MODE (NEUT)   228.2   0.13           26.9

            NO FOLLOW UP LANE TEST DONE

            COMMENT : IDLE MIXTURE SET TO EMISSIONS DECAL SPEC:  920 TO
                      850 LEAN DROP IN NEUTRAL.

            SEQ#15 FEDERAL TEST PROC.   1.65   16.4   391.6   3.23                      21.0
            SEQ#15 50 MPH CRUISE        41.7   0.29          1392.7
            SEQ#15 HIGHWAY FUEL ECON.   0.73    6.4   277.0   5.56                      30.7
            SEQ#15 4 SPD IDLE (NEUT)   335.2   0.12           18.8
            SEQ#15 4 SPD IDLE (2500)    29.2   0.23           35.4
            SEQ#15 4 SPD IDLE (NEUT)   221.4   0.11           23.1
            SEQ#15 FED 2 MODE (30)      62.5   0.34          951.9
            SEQ#15 FED 2 MODE (NEUT)   171.0   0.13           38.0

            FOLLOW UP LANE TEST:
            CAT: P    FUEL: P
            HC:  328  CO:  0.21   GAIN:  80
```

[NOTE: FOR 4 SPD IDLE & FED 2 MODE TESTS: CO IS %; HC IS PPM/H; NO IS PPM]

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